BY

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FORMED BY

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FOOD
AND ITS PREPARATION.

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A COURSE

OF

TWENTY LECTURES

DELIVERED TO UPWARDS OF FIVE HUNDRED

GIRLS FROM ELEMENTARY SCHOOLS.

BY

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PREFACE.

BOOKS on Food and Cookery are already so numerous, that it seems almost superfluous to add another to the list. The present one is published in response to the wishes of many friends and others who have either heard the Lectures or seen the syllabus of them which was issued at the time they were delivered.

If other apology be required, the author need only mention the increasing attention that is being directed to this subject in all grades of society, and especially the importance attached to it in respect to the elementary education of the country.

This little book will be found to differ somewhat from most others of its kind. It is not merely a cookery book filled with recipes, nor is it an exhaustive treatise on

Food ; such a book, perhaps, is scarcely needed. It is simply a faithful transcript of a series of Lectures which were given to various groups of girls, varying from ten to fourteen years of age, drawn from elementary schools, and who fairly represented the children of the working classes in one of the large and densely populated towns of the north of England.

The object of the Lectures was to supply a fair amount of information on Food generally, to show its important relations to the body, and by practical demonstration, to show the best way of cooking it. Whether the following pages suggest to the reader that this object was accomplished or not, the author cannot forget how much the Lectures were appreciated at the time by the girls themselves, nor can she forget the repeated testimony from many homes, that they had borne abundant fruit.

It is a matter of congratulation for our country, that in its latest great educative scheme, the special needs of "girl-training" have not been overlooked, and that Domestic Economy takes its place amongst the "special subjects" of examination in girls' schools.

In visiting several schools of cookery, and

"centres" where instruction was being given to school girls, the author was much impressed with the fact that there was great danger of the lessons being regarded as mechanical operations merely, to be gone through without any obvious reasons for each process. It seemed to her that to arouse the interest of the girls in the food itself, by imparting to them some knowledge of its production, the purposes served by it, and its bearing upon health, would be to increase their anxiety to cook it properly. This thought gave rise to the plan upon which the following Lectures are constructed.

Much has been said of the improvidence and waste among the working classes. But there is no doubt that many of them waste *ignorantly* rather than *wilfully*. If by proper teaching of this important subject of Food and Cookery, we can train the girls in our elementary schools not to waste ignorantly, we shall do much to better the condition of the working classes of the future.

The recipes contained in this book are of the simplest kind. Each has been well tried; many of them have been used by the author from her girlhood. No attempt has been made

to introduce any high-class cookery; and in giving the Lectures no utensils were used except those within the reach of all ordinary working people.

A list of articles used, with the prices attached, is given in the Appendix.

The "Questions," published in a separate form for the use of Teachers, were given to the girls as Home exercises.

Apart from extensive reading, the author is indebted to many friends for the information contained in the theoretical portion of the Lectures. Her best thanks are due (1) to those whose long residence in several of our most important colonies has enabled them to give her much information respecting our food in its native state; (2) to those whose practical experience in the purchase and retailing of foods has been at her command; and (3) to the medical friend who has revised those portions most nearly touching upon his profession.

From those readers of the book who may incline to severe criticism of its simplicity of style, or the occasional homeliness of its illustration, but one indulgence is asked, viz.:—that they bear in mind *throughout*, that the Lectures

were written for and given to young school girls, and that the book (like its companion one on "Clothing") is not put forth as a pretention to literary effort, but simply in the earnest hope that it may do some little good.

Richmond Villas,
Cambridge,
June, 1878.

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LECTURE I.

INTRODUCTORY.

THE subject which I introduce to you this morning is a new and somewhat novel feature in your School routine. Being so very different from all other subjects you have hitherto been taught, it is more than likely that you will be pleased by the novelty of it. But, while its newness may interest and even amuse you, I am very anxious that you should bear in mind how important a subject it is, and how much of your comfort in the future may depend upon a thorough knowledge of food and how to cook it.

During each lecture I shall show you how to cook several different articles of food, and, knowing that girls are fond of *tasting*, shall also allow you to taste all we make. Before cooking and tasting, I think it will be well for us to have some conversation about these wonderful

bodies of ours, so that we may find out why they need to be constantly supplied with food.

If you look at this diagram, you will see a picture of a *skeleton*, or the *frame* upon which a human body is built. You will be able to tell me that this frame is made of Bones. Looking at the other diagram you will see that the frame is covered, and will tell me it is covered with Flesh. You all know that throughout our bodies there is something constantly flowing which we soon see if we cut ourselves. This is the Blood.

No doubt you have each had a tiny baby in your arms. Did you notice how very helpless it was? Yet it had bones, flesh, and blood as you have. But baby's bones had to grow and become strong, and its flesh firm, before the tiny thing could help itself. You have seen a piece of gristle in the meat you have had to dinner sometimes. Well, a baby's bones are almost as soft as that, and could be very easily bent. Hence we see how very wrong it is to try to make baby walk before its bones have grown strong enough. The weight of its body bends the bones of the legs, they grow crooked, and the poor child grows up deformed, when it might have grown straight with proper care. What numbers

of children and adults there are in this town of Sheffield who are the victims of careless nursing.

Feel baby's arm, its flesh is soft, not so firm as ours. How cold baby feels if we do not keep it well clothed! Its blood is not so warm as ours. We see, then, that in our infancy our bodies have to grow and become strong, and be kept warm. Also, when we grow older, and have done growing, our bodies need strengthening, warming, and repairing. We wear them out by exercise and work in its various forms. Therefore we must keep them repaired, or *mended,* or they will soon become useless.

The growth, strengthening, warming, and repairing of the body are effected by the blood, and the blood receives its power to do this from *the food we eat.* Hence we see *why* we must keep the body supplied with food. If we took no food, our blood could not get materials to do its work with, and our bodies would waste away.

The different parts of our bodies, bones, flesh, and blood, are not made up of the same materials; therefore they each require a different kind of food to strengthen and repair them. We will say more about this in our next lesson.

Now a few words about the *Preparation* of

our food. This is a subject of domestic economy which every girl and every woman ought to study with most careful consideration. By a proper management of the food we eat, women may do much to prevent disease, to make home happy, and to lessen the number of public-houses in the land. I believe that many a poor man is driven to drink because what he gets to eat is so badly prepared that it does not satisfy him. He does not feel that it repairs or mends his body ; and, thinking that he needs something else, he goes to a public-house and there spends his money in what destroys rather than nourishes him. Too often women save themselves the trouble of cooking, by going to a shop and buying something ready to put on the table. Or if they buy a piece of uncooked meat, they will cook it in such a manner as to make it hard and tasteless. Had they bought a little less meat, a few fresh vegetables, and taken the *trouble* to make them into a nice little stew, it would have served the family much better ; they would have had a nice, tasty, hot dinner, and best of all, would have had all the nourishment the meat and vegetables contained.

I am taking up more time than I intended in

this introductory lecture, but think it will be well spent if I can induce you, while you are young, to learn how to make the *best of everything*. I hope you have all got mothers who make you learn to do everything in the house, in the shape of cleaning, cooking, making and mending your clothes, and anything else belonging to woman's sphere of labour. If you have this privilege, as I had when a girl, let me assure you that it will prove a great blessing to you in after-life.

We cook our food to make it more palatable, to improve its flavour, and to render it more digestible.

There are three things very essential to good cookery, and these are, Cleanliness, Economy, Punctuality. You all know what *cleanliness* means; and those of you who have been often "kept in" for being late, will be able to tell the exact meaning of *punctuality*. But perhaps some of you may not know the right meaning of the word *economy*. It simply means *carefulness* or *good management* of the things we have to do with. It is our duty to be economical, not extravagant. Now to work. Before we can cook, we must have a fire, and since there is a right way of making one, we will first learn

How to light a Fire.—What do we require to light a fire with? Paper, wood, cinders, coal, and matches. We must remember to *dry* the wood, or it will not burn Before using any of these materials, we must clear out the grate, and lay a few cinders at the bottom of it, then lay the paper, next the wood, and on the wood a few large cinders and some pieces of coal. Now we set fire to the paper with a match. But see, our fire is not burning, how is that? Because it has not been properly laid. The paper should have been loosely crumpled, the wood should not have been laid flat on the paper, but allowed to rest on the bars and back of the grate, and put some pieces one way and some another—so. The cinders and coal must also be placed very lightly on, and not packed too closely together Now it burns well; what has made the difference? In the first and *wrong* way, we packed all the wood and coal, &c., so close together that no *air could get between them*, and so they could not burn. The air is principally composed of two gases, one of which (oxygen) is necessary to feed the flame, or, as books put it, to support combustion. If a lighted candle is put under a shade, it will die out when the oxygen has been

exhausted, unless fresh air is admitted. Just as you see this candle; it burns so long as the air is round it, but when put under this glass bottle it goes out, because the air is shut out from it. Thus you have a *reason* for laying the fire in a proper way. We shall spend the remainder of our time this morning in making several very simple, though very useful things. Suppose we make up a nice tea, with buttered toast and a poached egg for *father*, and finish up with a dish of rice milk for the youngest children.

How to Make Tea.—I dare say you all think you can make tea, it is such a simple thing. But you may spoil it in the making, if you do not make it properly. In the first place, have your tea-pot hot, by rinsing it out with hot water. Then put in the tea; the old rule, and a very good one, is to put a teaspoonful for each person, and one for the pot. When the kettle boils, fill the tea-pot at once with the boiling water, and allow it to stand from ten to fifteen minutes. Be sure to pour the water on the tea while *boiling*. If you place the kettle on the hob first, it will stop boiling, and the tea will be spoiled.

How to make Toast.—Bread for toasting

should not be new, but at least two or three days old. Cut it about the third of an inch thick. See that the fire is clear, or the toast will be smoked and dried. While toasting it, put a plate to get warm. The quicker it is toasted the nicer it will be. The side last toasted is the one to be buttered. Do not put it on the plate the moment it is done, but hold it half a minute to allow the steam to escape, or the toast will be heavy and sodden. Now the toast is on the plate, will some one please tell me what to do next? Some one says *scrape* the butter on. That is just what we must *not* do. *Never scrape toast.* Why? I will scrape the butter on one piece, and put it on in little pieces on the other, and allow it to melt, then *spread* it very slightly over, and you will see the difference. By scraping the butter on we have scraped the brown crisp particles off, and spoiled the toast.

How to Poach an Egg.—Put on half a pint of water, with a pinch of salt in it. When it boils, break the egg into a cup, and pour it gently into the boiling water—so. Let it simmer gently, until the white is just set. Take it out carefully with a small slice, and put it on the piece of toast just made.

This looks very nice, but as it would not be sufficient for so many to taste, let me ask each of you to try and do one for your father's tea when he comes home tired this evening, and no doubt he will let you taste.

Rice Milk.—This is a most wholesome meal for children, and very easily prepared. Take two tablespoonfuls (not large) of rice, wash it, and put it on in a clean saucepan, with one pint of milk, and a dessertspoonful of sugar. Allow it to simmer very gently, until the rice is quite tender. Stir in a pinch of cinnamon to flavour it.

In our future lectures we shall prepare the food first, and have our conversation while it is cooking.

LECTURE II.

PART I.

ROASTING, AND PUDDINGS EATEN WITH ROAST MEAT.

How to Roast a Joint of Meat.—We have here a Shoulder of Mutton to be roasted. The first thing to be attended to is the fire, which must be quite clear. Push the fire to the front with the shovel, and put on fresh coals behind. Now wipe the joint all over with a clean damp cloth. Cut off the knuckle bone, and stew it to make gravy. Weigh the meat to find out how long it will take to roast. Allow a quarter of an hour to each pound, and a quarter of an hour over. At this rate, a joint weighing five pounds will take an hour and a half. Meat without bone may be allowed twenty minutes to the pound, all being solid. Place the dripping-pan in front of the fire, hang the meat on the jack,

being careful to pass the hook through the knuckle end, and for the first five minutes let it hang close to the fire, to close the pores and keep in the gravy. Then draw it back a little way, allow it to finish gradually, not forgetting to baste it now and then. Keep the hastener round it all the time. When done, pour the dripping off the tin, sprinkle a little salt over the meat, and baste it with the knuckle gravy. Put it on a hot dish, and pour the whole of the gravy round it.

Yorkshire Pudding.—Put half a pound of flour into a good-sized basin, mix with it a salt-spoonful of baking powder. Stir into it two eggs, then add gradually a pint of milk, beating it well all the time with a wooden spoon. Grease a tin well, pour in the batter, and bake for half an hour, under the meat or in the oven.

Suet Pudding.—Put half a pound of flour into a paste basin, mix with it half a teaspoonful of baking powder. Chop a quarter of a pound of suet very fine, taking out all bits of skin; mix it well with the flour, together with a pinch of salt. Add sufficient cold water to make it into a stiff paste. Tie it securely in a well-floured cloth, leaving room for the pudding to swell.

Put it into boiling water, and boil gently for an hour and a half.

Norfolk Dumplings.—Mix well together a pound of flour, and a good teaspoonful of baking powder. Make it into a nice smooth dough (not too stiff), with cold water. Flour your hands, and roll the dough into little balls, rather larger than an egg. Throw them into boiling water, and boil for twenty minutes.

PART II.

CONSTITUENTS OF THE BODY, AND DIFFERENT KINDS OF FOOD.

Having put our meat and puddings to cook, we will have some conversation while they are cooking, not forgetting that the meat will require basting occasionally, and the puddings watching.

This morning I shall try to show you what a number of different things is contained in blood, flesh, and bones, and the kinds of food required to supply all those materials.

We have upwards of two hundred bones in our bodies. The principal things of which they are composed are, lime, phosphorus, and gelatine.

You all know what lime is, you have so often seen it used. Phosphorus is used on the ends of lucifer matches, to make them burn. I have a piece of phosphorus in this bottle. You see it is in water. It would not do to keep it exposed to any heat, or it would soon *ignite*, or take fire. I will cut a very small piece off, and put it on a plate. Now I will warm the knife and put it near to it. See how quickly it lights, and how brightly it burns! I see that some of you scarcely like to believe that your bones contain anything that will so easily ignite. But do not be alarmed, there is no danger of your bones igniting; most of them I see are well covered, and the phosphorus in them is not found in a lump, as you see it here, but it is mixed in with the lime, and the two together form what is called *phosphate of lime*, which forms the *hard* part of our bones. Here is a bone with a piece broken off. You see the bone is hard. This other piece you would scarcely recognise as the part broken off; it is quite soft, and looks very different from the bone. The reason is, that I have taken the hard part, the phosphate of lime, out of it by means of acid, and there is only the *gelatine* left. I will take some phosphate of

lime out of this box, and put it into a glass. Now watch the effect when I pour in a little acid out of this bottle. It does not actually burn as the pure phosphorus did, but you see a smoke arising, and you will at once tell me it smells like *matches* burning.

In addition to these three principal things, our bones contain a small quantity of fat, and a substance called *potash*, which is a kind of salt. Here also, in this box, there is another substance which is obtained from bones. You see it is very different in appearance from all the other substances. It is black, and is called *carbon*, or *charcoal*. It is used for many purposes which we have not time to notice. So much for the composition of our bones.

You remember my saying how soft the bones are in infancy. They need hardening, and for this purpose we must eat some kind of food which will do this. Bread and oatmeal are the best kinds of food for hardening the bones, as they contain large quantities of phosphorus and lime. Bread, especially *brown* bread, contains more phosphate of lime than any other food. This is why young, growing children, should eat plenty of bread.

Vegetables and fruits contain a large quantity of potash. The gelatine, or soft part of bones, is furnished by several kinds of food, both animal and vegetable.

Foods which contain these substances most largely are called *Bone-makers.*

Flesh is composed principally of fat, fibrine, albumen, and gelatine. It also contains a little lime and phosphorus, and a very small quantity of iron. You all know what fat is; and though some of you may not like to eat it, it is very proper that you should eat a little. *Fibrine* is the lean part of flesh. You see this piece of lean beef. It seems to be composed of fibres, or small stringy pieces, which we could separate. These fibres contain the juices of the flesh which we try to keep in when cooking a joint of meat. The white of an egg, which I have in this glass, is *albumen* in its purest form. When an egg is put into water, or exposed to the heat of the fire in any way, the white hardens; and it is the albumen on the surface of the meat which hardens when we put the meat close to the fire for the first five minutes. By becoming hardened, it closes up the pores or holes in the fibres, and so prevents the nourishing juices from escaping.

Foods which contain the substances found in flesh, are called "Flesh-formers." I will write a list of them on the blackboard, which you can copy.

FLESH-FORMERS.

ANIMAL.		VEGETABLE.	
Meat.	Game.	Flour.	Rice.
Fish.	Eggs.	Oatmeal.	Peas, Beans.
Poultry.	Cheese.	Barley, Rye.	Lentils.

Those in the left hand column are flesh-formers obtained from animal foods, and those in the right from vegetables. They are also called "Nitrogenous Foods," because they contain a gas called *nitrogen*.

Besides *strengthening*, our bodies need *warming*, and there are certain kinds of foods which serve this purpose. They are called "Carbonaceous Foods," because they contain carbon or charcoal. Like nitrogenous foods, they are obtained both from animals and vegetables. Here is a list of them.

WARMTH PRODUCERS.

ANIMAL.	VEGETABLE.
Butter.	Sugar.
Oil.	Treacle.
Lard.	Starch.
Suet.	Bread.
Dripping.	All Vegetables.

These foods give warmth, but it would not do for us to depend upon them for all the strength we need. They are consumed or wasted chiefly by our breathing.

Since all the materials which make bones and flesh, and which give warmth, are supplied to the body through the blood, you will at once see that the blood must contain all the things we have on the table here in the boxes or bottles. If I had a certain quantity of blood, and could analyse it for you, we should find that out of one hundred parts, seventy-six would be water, of which there is a large quantity in our bodies, and the remaining twenty-four parts would be fibrine, albumen, gluten, and mineral matters. These latter being salts, in the form of lime, soda, potash, purify the blood. You will remember that they are found largely in vegetables.

Now, from all these facts, you will conclude that, in order to preserve health, we must have a *mixed diet*. It has been proved that animals fed on *one* kind of food only (either a warmth-giving or flesh-forming one), die after a certain length of time; and just so with human beings. When their diet consists of food which is short of bone-making material, the bones will not become

strong; if short of flesh-forming material, the flesh will waste away; if short of mineral food the blood will become impure, while disease and death will ultimately follow. Thus you see that it is quite possible to *starve to death* while we seem to have *enough to eat,* if what we eat does not contain all the constituents of the body. It is a sad thing for little children, when mothers are ignorant of the importance of a mixed diet. We often see the lamentable results of such ignorance in the poor emaciated, rickety children, so often to be found in our courts and alleys.

Poor people imagine that they cannot afford a mixed diet, because they cannot purchase all the varieties found on the tables of their more fortunate neighbours. This is quite a mistake, and I hope that you will see very plainly, before we finish our course of lectures, that all may have a *proper mixed diet,* though their means are small.

LECTURE III.

PART I.

BOILING.

How to Boil a piece of Meat.—It takes a longer time to boil meat than to roast it, since we allow twenty minutes to each pound, and twenty minutes over. Sometimes, when boiling meat, we do it for the purpose of making some good broth or soup. In this case the meat must be put on in *cold* water, so that the albumen may not harden and close the pores, from which we wish to extract all the juices. But when the meat is wanted for special eating, in order to be nice and tasty when done, it must be put on in very hot, almost boiling water, so as to harden the albumen at once, and keep in all the juices.

The piece of meat I have here weighs three pounds. You will be able to tell how long it will take to boil; an hour and twenty minutes. I

shall wipe it over and put it into this saucepan of hot water, with a saltspoonful of salt. to make the scum rise, which must be carefully taken off, or it will discolour the meat. When it boils, and the scum is taken off, I shall add two onions peeled and cut in slices, and two carrots, well scraped and washed, to flavour it. Then I shall draw it to the side, and allow it to simmer rather than boil, until done If allowed to boil quickly, the meat would become hard instead of tender.

Tripe, with Onion Sauce.—The piece of tripe I have here is parboiled, and will take some time to cook in order to be quite *digestible.* It weighs one pound. I shall first put it as it is in a saucepan, with enough water to cover it, and allow it to boil up quickly for a minute or two. Then take it out and put it into this basin of cold water. This is done to *blanch* the tripe. Now I shall cut it into nice-sized pieces, and put it back into the saucepan, with one pint of milk and a saltspoonful of salt. Cover, and let it simmer for an hour. Into another saucepan I shall put four good-sized onions to parboil, with a saltspoonful of salt. When the tripe has simmered an hour, the onions must be chopped and put to it, both being allowed to simmer

half-an-hour longer. The sauce must then be thickened with a good tablespoonful of flour, mixed very smoothly with a little milk, and stirred well into it. Boil for two minutes, stirring all the time. Add a little more salt if required. When nicely done, this makes an exceedingly cheap and nourishing dish.

Cow-heel.—This, too, is parboiled, and may be cooked in the same way as the tripe, but will require half-a-pint more milk and a little more salt, as well as two more onions. If a cow-heel can be obtained from the butcher, and not in a parboiled state from the tripe-dealer, it can be turned to very good account. A large quantity of jelly may be obtained from it, after which it may be again stewed in milk, and form the foundation of a good milk soup, while the meat put into a savoury gravy made of onions, carrots, herbs, and ketchup, will make quite a dainty dish.

PART II.

SOURCES OF FOOD.

We cannot know too much about the food we eat. It is absolutely necessary that we should

know how to cook it, and very essential that we should know how to buy it; but, as girls, growing into womanhood, you should pick up all the information you can about food, apart from the buying and cooking of it. It will afford you a large amount of profitable pleasure to seek out the sources whence we obtain our food, the countries which supply us with it, the manner in which large quantities of it are prepared for sale, and many other facts which cannot be fully looked into in the short space of time allowed to twenty lectures.

However, it is my intention to take just such a glance at our food in its various aspects, as will enable you to gather some information which may be *useful* as well as interesting.

This morning we will trace the sources of the "Flesh-forming Foods," on the list given last week.

Meat.—Beef, as you all know, is the flesh of the ox or cow. Our own country supplies us chiefly with it, though at present large quantities are imported from other countries.

Mutton is the flesh of the sheep. Large quantities are fed in the agricultural districts of Great Britain and Ireland, while numbers more

are imported from other lands. Since the price of meat has become so high, attempts have been made to procure a large quantity by importation. We can now purchase Australian meat in tins, or American beef and mutton in an uncooked condition. The demand for the latter has been so great, that in many towns its price has risen considerably. Those of you who have tasted the American meat tell me it is very good; but you like our own English beef better.

Veal is the flesh of the calf. Veal and Lamb are not so digestible or nourishing as beef and mutton.

Pork, the flesh of the pig, is a food we should not often indulge in, as it is highly indigestible. It is also more subject to disease than any other kind of meat. Pigs often suffer from measles, and it is difficult to detect this in the pork. Whenever you buy pork, go to the best butcher you can find for it, and do not mind giving a good price.

Bones contain much that is good for food, and may be bought very cheaply. A good marrow-bone is a very economical purchase.

Fish.—Fish abound off the shores of Great Britain and Ireland, and are common in most

places where there are means of quick conveyance from the sea. In Sheffield, we have direct railway communication with the port of Grimsby, and can easily obtain fresh fish from there several times a day. Thus we can obtain it both fresh and cheap. In those inland towns having no direct railway communication with fishing ports, fish is very scarce and very dear. There are very many kinds of fish, but we shall do well to remember that the cheapest kinds contain the most nourishment for the smallest possible cost. While we pay a high price for salmon as a dainty, we should derive more nourishment from the same amount of fresh herrings, haddock, plaice, &c., at about one-fourth the cost. Fresh-water fish are found in our rivers and lakes, and in ponds supplied with running water. The most common is the perch, then we have the chub, char, dace, roach, &c.

Poultry.—Under this head come fowls, turkeys, ducks, geese, pigeons, and tame rabbits, all so common in farm-yards, as well as in other places where they can be conveniently kept, that it would be a waste of time to say much about them. They are all good for food, and most of them easy of digestion, but their price places

them beyond the reach of many people as a common article of food.

Game.—By *game* we understand all those animals and birds used as food, which "get their own living"—are not fed by man as poultry are. Hares, *wild* rabbits, *wild* ducks, partridges, pheasants, grouse, wood-pigeons, landrails, and many others, inhabiting the woods and fields. Venison, the flesh of deer, is game also.

Eggs.—Those used for all domestic purposes are obtained from fowls or ducks. They form a very nutritious article of diet, as they contain so much albumen. You will remember that I gave you the white of an egg to examine in our last lesson, as a specimen of albumen in its purest form. The yoke of an egg is composed principally of yellow oil. Eggs may be eaten in various ways, but should always be lightly cooked, in order to be digestible.

Cheese —When good, cheese stands high as a nutritious article of diet. When made from new milk, it contains more nourishment than butchers' meat. Stilton, Cheddar, and Gloucester cheeses are amongst the best kinds. Cheese made of skimmed milk is not so good for food, and is very tasteless. Cheese-making is a most inte-

resting process. When I was a girl, it was my privilege to spend my holidays at farm-houses where cheese-making formed a large share of the work. I have seen the new white milk brought in after the milking of about sixty cows, and in my girlish curiosity have watched each process, and assisted in my way, until the milk has been transformed into two fine cheeses, each weighing about seventy pounds. It would take up too much of our time to tell you all about cheese-making, but as some of you may not know how the milk becomes changed into a solid substance, it may be well just to notice how it is done. The milk is put into very large pans, and a substance called "rennet" is put into it. Rennet is the prepared lining-skin of a calf's stomach. It contains a juice, of which we shall have more to say in a future lecture, possessing the power of *coagulating* the milk, or separating the curd from the watery parts. The curd then undergoes much pressing, until it forms a solid mass, when it is put under a kind of machine called a cheese press. This forms it into a round, solid cheese. It remains in this press for several days. Each day the cheese is pricked with long skewers, and the screw tightened, so as to press out all the

whey. A well made cheese has no holes in it. Whey is a very wholesome drink.

Milk.—This is the natural food of young animals. Our principle store is derived from cows. Goat's milk is rich and good, and often prescribed for invalids. Milk contains all that is necessary for the support of a young child. It may be divided into three parts—the *curd*, or *flesh-forming* part; the *cream*, which is *warmth-giving;* and the *whey*, which contains the *mineral* matter so essential to the health of all human beings. In this natural food, so wisely provided by the Creator of all things, for the sustenance of young animals, we have a beautiful illustration of the necessity nature has for a *mixed diet.*

Our *vegetable* flesh-formers are known by the name of *cereals*, or *corn-plants.*

Flour is the inner part of the grain of wheat. Wheat is of such common growth, that it needs no description. You have all seen it. Good flour makes good bread, and since bread is with us the "staff of life," we must always make it our first consideration to have it good.

Oatmeal is ground oats. It cannot be made into light bread; but eaten in the form of oat-

cake, or porridge, is one of the best of breakfasts for children. The Scotch are famous for their oatmeal porridge and cakes. If all English children took a plate of porridge every morning, many of them would grow up much stronger than they do.

Maize is Indian corn. It is used in many forms. Corn-flour, maizena, Indian cornmeal, are all preparations of maize. It forms a good food, but must be taken in conjunction with other things.

Barley and Rye grow like other grain, but not used largely for making bread. Barley, under the name of *malt*, is used very largely for brewing.

Rice.—This grain, or cereal, is not so nutritious as wheat, though in some countries it forms the staple article of food. It is cultivated very largely in India, and since it forms the chief food of the Hindoo, a failure of the rice crops is as serious to the natives as a failure of our wheat crops would be to us, or even more so. Rice is grown, too, in Egypt, on the banks of the Nile. It is grown in very watery soil, and as a consequence contains much more water and far less nutriment than wheat. Rice is cultivated by the

natives of most tropical climates, China, South America, East India, as well as those mentioned before.

Peas and Beans.—These are grown in abundance in the fields and gardens of our own land, as well as in many others. It is a great pity that their highly nutritive value is not better known among the poor and the working classes of our towns. When I tell you that one pound of beans contains as much nourishment as three pounds of lean beef, you will see of how much value they are as food, though comparatively little used. They are cheap, and can be obtained all the year round, either fresh or dried.

Lentils are the most nutritious of all the pulse kind of plants. They are cultivated largely in Oriental countries, where they are held in high esteem as food. We read of them in the Bible, and doubtless the "mess of pottage" for which Esau sold his birthright, was made of lentils. The celebrated "Revalenta Arabica Food" is ground lentils. It makes an excellent food for an invalid, for it is both nourishing and digestible. A teaspoonful is a nice addition to a cup of beef tea.

LECTURE IV.

PART I.

SOUP-MAKING.

SOUPS take a long time to cook, and should be put on early if wanted for dinner the day they are made. This morning we shall make two very cheap soups, and one rather more expensive.

Bone Soup.—Buy two-pennyworth of fresh bones from the butcher. Break them into small pieces. Put them into a saucepan with enough water to cover them, and one pint over. When boiling, add a saltspoonful of salt, one large turnip cut in quarters, two carrots, four onions, a blade of mace, and one teaspoonful of peppercorns. Close the saucepan, and simmer very gently for three hours. This is a very nourishing soup.

Leg of Beef Soup.—Two pounds of shin of

beef. Cut it into small pieces, put it into a saucepan, with two quarts of cold water, and a saltspoonful of salt. When it boils, add four onions, two turnips, three carrots, a small bunch of herbs, all cut into small pieces, and half a saltspoonful of pepper. Simmer very gently for three hours.

Vegetable Soup.—Three potatoes, two carrots, two turnips, half a head of celery, a good-sized flap-mushroom. Wash and peel these vegetables, cut them into small pieces, and put them into a saucepan, with half a saltspoonful of salt, and rather less of pepper. When they boil, add to them a slice of bread, toasted very brown, and two onions cut in slices and fried brown in an ounce of dripping. Simmer until the vegetables are quite tender, which will take from two to three hours. Then mash the whole through a wire sieve, or the colander. Put back into the saucepan, and boil for two or three minutes, stirring it with a wooden spoon. This is a most nourishing and tasty soup, at the very small cost of about a penny per quart.

Children's Soup.—Wash, peel, and cut into slices four potatoes. Put them on to boil with two quarts of water, and a saltspoonful of salt.

When they boil add to them two onions cut into thin slices, a slice of bread, a little pepper, and a blade of mace. Boil until the vegetables are quite tender. Mash them through a sieve or colander, passing the water in which they have been boiled through with them. Put all back into the saucepan, with a pint of new milk and two tablespoonfuls of fine sago. Stir until it boils, and allow it to simmer for ten minutes. This is a nourishing and simple soup for little children, and much less likely to disagree with them than one prepared from meat or stock of any kind.

There are several points in the preparation of soups which need special attention.

(1) Give them plenty of time, so as to extract thoroughly the goodness from what is put into them.

(2) *Simmer* them gently. Boiled soup is spoiled soup.

(3) Be careful to take off the scum as it rises.

(4) Never leave soup in a saucepan, if it is not used as soon as made. Pour it into an earthenware basin, and leave it *uncovered.*

Of the value of soups as food, too much can-

not be said. If all poor people could be taught their value, as well as how to make them cheaply, many would be much better fed than they are. The French working classes and peasantry seldom dine without soup They make anything and everything that is eatable into soup, and are shocked at our English ignorance and want of economy, when they find how seldom soup forms part of our dinners, and how often things are thrown away which they would put into a stock-pot, to form the basis of a good cheap soup.

Meat is dear, and a plate of soup eaten with a piece of bread, before the meat comes to table, will lessen the appetite for meat, do as much good, and make a perceptible difference in our butcher's bills. We should do all we can to use less meat, now it is so dear. A most excellent and nourishing dinner for at least two days a week, might be made of soup, followed by a plain boiled suet pudding, eaten with a little treacle. Thus a family of five or six might dine off vegetable soup, bread, and suet pudding with treacle, and have a dinner containing everything necessary for the support of life, for the small cost of something less than a shilling. This seems worth consideration, and worth *trying*—don't you think so?

PART II.

SOURCES OF FOOD—(CONTINUED).

This morning we will endeavour to find out how we obtain our "*Warmth-giving* Foods." We will take them in the order given on the list a fortnight ago.

Butter.—Butter, as you all know, is made from cream, by churning. Some of you may have seen it made, and also had a drink of the buttermilk, one of the most wholesome drinks we can have. Fresh butter is that which we obtain from dairies or farms, where it is made fresh several times a week In most parts of England it is made up in round pats, weighing half a pound or a pound. In Cambridge it is made into ridiculously long thin rolls, which measure a yard, and weigh a pound, being sold as a "yard of butter." But we have to depend very largely on other countries besides our own for butter. A great deal comes from Ireland, as well as from Scotland, France, and Holland, under the general name of "salt butter." Scarcely any article of food is more subjected to adulteration than butter. Lard, grease, and

other undesirable things find their way into much of the "fine dairy butter" sold in the London and other markets.

Oil.—We use very little oil in the preparation of our food—we have a natural aversion to it. In very cold extreme northern climates, the inhabitants consume large quantities of oil and fat. They need a large amount of warmth-giving food, and have a natural craving for it. You have all heard of Sir John Franklin, the celebrated Arctic voyager. We read that on one occasion, finding a hungry Esquimaux boy, he thought he would see how far his fat-eating propensities reached. He gave the boy about two pounds of fat pork, which he rapidly consumed, and finished his meal by eating seven pounds of tallow candles! The whale and the seal supply the inhabitants of Arctic regions with the oil they consume. The flesh of the polar bear, which contains a good deal of fat, also forms an article of diet among them. Salad oil, which we use in preparing salads and other dishes, is extracted from the fruit of the olive tree, which is a native of Asia, and cultivated in the countries of southern Europe.

Lard is prepared from the inner fat of pork,

called *leaf*, by rendering. It is best to make it at home, then we are sure to have it pure. Cut the leaf into small pieces, and boil it gently down, until the pieces look brownish and crisp. Strain, and allow it to cool. The pieces of brown, crisp fat, under the name of "Scraps," are enjoyed by children, when eaten with salt and bread, but should be taken very sparingly.

Suet is the fat which surrounds the kidneys of beef or mutton. Used chiefly in making puddings.

Dripping is obtained from meat when cooking. It is very valuable as food, and when good, is far preferable to butter for children.

Sugar.—Most of the sugar we use is obtained from the sugar-cane, most extensively grown in the West Indies, Brazil, Venezuela, British India, China, Japan, and the southern districts of the United States.

The sugar-cane grows about eighteen or twenty inches high, and about two in diameter. When ripe, the canes are cut, and passed between heavy rollers to extract the juice, which is then boiled with a mixture of lime-water, well skimmed, and poured into large coolers, where it crystallizes, or assumes the form of *raw* sugar. In this state it

is imported into England, and is refined, by being mixed with water and bullock's blood, and allowed to arrive at a heat sufficient to coagulate the albumen in the blood, which rises to the surface, bringing with it all the impurities, and leaving the refined sugar underneath. It afterwards undergoes still further refining by animal charcoal. Establishments where this business is carried on are called "Sugar-refineries," and generally combine the manufacture of sugared confectionery with the refinery of sugar.

There are other kinds of sugar besides that from the cane.

Maple sugar is made in Canada, and the Northern States. Very little is sold, as the farmers make it for their own use. The juice from which it is made is the sap extracted from the trunk of the maple tree, which is boiled and freed from impurities, and when cold is ready for use.

Beetroot sugar is very common on the Continent. It is the refined and crystallized juice of the beet. That obtained from white beet is the best.

In some countries, sugar is made from the sap of the various kinds of the palm tree, such as

the cocoa-nut and sago palms. Sugar may also be extracted from carrots, but not in very large quantities.

Sugar is of great value as food. It contains a large amount of carbon. Growing children should be allowed to take plenty of sugar with their food, especially delicate children, who have a natural aversion to eating fat. Sugar serves the same purpose to the body as fat meat.

Treacle, or molasses, is juice which runs from the sugar after it is boiled and put into the casks. Holes are left in the bottom of the casks to allow it to escape. Like sugar, it answers the same purpose as fat in meat, and is a very wholesome addition to children's diet in many forms, such as treacle pudding, rice and treacle, or bread and treacle.

Starch.—This warmth-giving food is found in many of the things we eat daily. All grains contain it; rice contains the most. Starch is found, too, in vegetables. Potatoes are composed principally of starch and water.

Bread contains a good deal of starch. Most of the patent foods sold are composed principally of starch, and are not good as food for young babies. Some mothers feed babies on starchy

foods, with the addition of very little milk. Baby seems to grow and thrive, because the starch it eats makes fat on its bones, but when it comes to walk, its legs do not seem equal to the weight of its body, for the very good reason that the bones have not been strengthened, although baby has grown so fat. The most simple and most nourishing prepared food a baby can have, is that made by baking the best wheaten flour until it is a light brown, then mix with milk, and boil to the consistency of cream.

LECTURE V.

PART I.

STEWING.

Beef à la Mode.—An ox-cheek, a cow-heel, three ounces of dripping, three carrots, six onions, a small bunch of herbs, two tablespoonfuls of flour, a saltspoonful of pepper, and a good saltspoonful of salt.

Cut the flesh from the bone of the cheek into pieces, and fry them brown in the dripping, first dipping them in the flour. Melt the dripping in the saucepan before putting the pieces of meat in to fry. When the meat is browned, cut the cow-heel in pieces, and the vegetables in thin slices. Put them into the saucepan, and add water in the proportion of one pint to each pound of meat. The water must be hot, and while pouring it in, stir well. Add the pepper and salt. When it boils, draw the

saucepan to the side, and simmer very gently for at least three hours. About an hour before it is done, mix two tablespoonfuls of flour with a little water, and stir well in to thicken it. This is a French dish, very economical, and when properly cooked, very good.

Brazilian Stew.—Two pounds of beef, two carrots, one turnip, two onions, a small bunch of herbs, a saltspoonful of salt, half a saltspoonful of pepper, and a quarter of a pint of vinegar.

Cut the meat into neat pieces, dip each piece well in the vinegar, and pack them closely in the saucepan. Sprinkle the pepper and salt over them. Cut the vegetables in slices, and put them with the herbs into the saucepan. Close the lid, and allow it to steam for three hours, stirring it very occasionally.

Some one tells me I have forgotten to put the water in. This is a stew made *without* water, though we shall find some good tasty gravy when it is done. The vinegar draws the juices from the meat, and this, together with the water contained in the vegetables, makes the gravy. This is an excellent way of using up the coarser kinds of beef steak. But "the proof of the pudding is in the eating," and I must leave you

to pass your own opinion on this stew when it is done.

Stewed Steak.—One pound of buttock steak, one good sized onion, one carrot, half a small turnip, half a saltspoonful of salt, and half that quantity of pepper, and one ounce of good beef dripping, or butter.

Melt the dripping or butter in the saucepan, cut the steak in three nice pieces, and just brown them in the dripping. Cut the onion and carrot into thin slices, and the turnip into little thick squares. Fry them all in the dripping in which the meat has been fried. When nicely browned, lay the meat on the top of them, add the pepper and salt, and half a pint of warm water. Close the lid, and simmer gently for two hours. Mix a small tablespoonful of flour with a quarter of a pint of water, and stir in about a quarter of an hour before the steak is done. When quite done, stir in a dessertspoonful of mushroom ketchup, or some kind of sauce, such as Harvey's, Worcester, or Yorkshire Relish.

I must not leave this part of our lecture without saying a few words in favour of *Stews*. Like Soups, they claim high praise as food, being

both nourishing and economical. A little meat may be made to go much further if stewed instead of broiled, and it will also yield all the nourishment the meat affords.

Like soups, too, they take a long time to cook, as they must be done very gently, so as to ensure the meats being tender. A good plan is to prepare them the day before they are wanted. The fat can be removed from the top when cold, and the stew warmed up again for dinner.

PART II.

SOURCES OF FOOD—(CONTINUED).

Mineral Foods.—Minerals are substances found in or on the earth, which are neither animal nor vegetable. Iron, copper, gold, and many others, are very common to you.

The only mineral food which we take *directly* into our bodies, that is, in its pure, simple form, is *salt*. We take it *with* our food; the other minerals found in the blood are taken *through* our food, not *directly*, in their pure unmixed state, like salt. We never think of eating lime *with* our food, but we take it *through* our food.

Salt is obtained from several sources. That used as food is procured from brine springs The water from these springs contains a great deal of salt. When subjected to a certain degree of heat, the water *evaporates*, leaving the salt behind, which is put into square boxes perforated with holes, and allowed to drain. When quite solid, the blocks of salt are taken from the boxes and dried. Rock salt is obtained from salt mines. The principal salt-producing counties of England are Cheshire and Worcestershire. A salt mine presents a very pretty appearance when thoroughly lighted up, looking like a crystal hall.

Rock salt is used in stables and farm buildings for the cattle, being supplied to them with their fodder, or placed in the form of a block of rock-salt, where the animals can take a lick of it as they feel disposed. Rock salt is also used very largely as manure for land, about two hundred million tons being used annually in the United Kingdom.

Years ago, there was a duty on salt, and our great grandmothers had to pay a very high price for it, at one time as much as a shilling a pound.

There is a natural craving for salt in all animal creation. Animals will travel long distances to get it, and in countries where it is scarce, men will give gold for it, or anything else they possess, even their wives and children. African explorers tell us that the children in some districts of Africa will suck a lump of salt in preference to sweetmeats.

Although salt is used ordinarily to make our food more palatable, the natural craving for it shows that it must perform some far more important function than this. It purifies the blood. We should be very thankful that this wholesome and most important article of mineral food is so cheap.

Phosphate of Lime is one of the mineral foods we take indirectly. It is found in all grains, and in the flesh of animals fed on grasses. You will remember that this is the mineral matter which forms the hard part of our bones.

Potash is another of the minerals found in the body. It exists very largely in all fresh vegetables. Vegetables lose much of the potash, and other mineral matter they contain, by boiling. The French always use the water in which their vegetables have been boiled, for soups, with the

addition of other things to it, because they know the value of the salts of potash, which has been extracted from the vegetables when boiling. There are some vegetables which may be eaten uncooked, and are very wholesome. Lettuce, Water-cress, Celery, &c. Fruit contains a great deal of potash; this is why ripe fruit is good to eat.

Soda, which is one of the minerals we shall notice particularly in another lesson, is manufactured from salt, It was formerly made from sea-weed. In addition to those mentioned above, iron, and magnesia, found in small quantities in the body, are supplied through our food, very specially by our principal *liquid* food—water.

When we consider how many various things are necessary to the proper support of our bodies, and our utter inability to provide each one of them for ourselves, we cannot but express our admiration of the manner in which the "kindly fruits of the earth" are made to yield us all our bodies need.

We have time this morning to trace the sources of our vegetable foods and fruits.

Potatoes are the most common vegetable food

we use. They are grown in all parts of our country, and in all temperate climates. The very early new potatoes we see in the markets, are sent over from the Continent. Potatoes differ much in quality, according to the soil in which they are grown. Those grown in Yorkshire, for instance, are mealy and dry when properly cooked, whilst those grown in the bog land of Ireland and Scotland are watery and waxy.

In hot climates, the Yam takes the place of our potato. It grows to a great size, and is long in shape, more like a parsnip, or carrot, but *very* much larger. One I had from Jamaica, weighed nearly three pounds, and that was not one of the largest. When baked, the inside is very white and mealy, but rather sweet. Negroes are very fond of yams.

Cabbages of various kinds are grown in all kitchen gardens, and are so common that we need not say more about them here.

Cauliflowers, parsnips, turnips, carrots, peas, and beans, are all familiar to us in the gardens and fields, which are in many parts of England covered with a crop of one or more of these vegetables.

Beetroot is a valuable vegetable, it contains so much sugar. It is not grown very largely in our country, but on the Continent, especially in France, it is extensively grown for the purpose of manufacturing sugar from it.

Asparagus, vegetable-marrows, cucumbers, tomatoes, mushrooms, celery, and onions, all come under the head of "Vegetable Food," as well as others not in such common use, such as spinach, artichokes, endive, &c. Asparagus is a very wholesome and nutritious vegetable, delicately flavoured, and well suited for a weak stomach. *Sea-kale* is a vegetable much resembling asparagus.

Lettuces, radishes, cress, and all the vegetables we use for salads, in an uncooked state, may be grown with little trouble, in an ordinary cottage garden.

FRUITS.

We can scarcely regard fruit as a nutritive food, nor one on which we are at all dependent as a diet. It is an agreeable addition to our food, and very far from being an unwholesome one. All races of men like fruit, and all countries produce it. It would take up too much

time to notice all the different kinds of fruit which find their way into the markets and fruit-dealers' shops; but we will just look at those grown in our own country, which are most familiar to us, and the dried fruits of other lands, which do us good service when our own fruits are "out of season."

Apples are the most common as well as the most useful, of our English fruits. There are many varieties grown in England, and large quantities are imported from the United States and France. Apples contain much acid, especially when not ripe, and if indulged in too freely, will injure the teeth, having the same effect upon them as the acid had upon the piece of bone shown to you in our second lecture.

Pears are quite wholesome when perfectly ripe. They are used as dessert rather than in cooking.

Plums of various kinds are not so wholesome as food, especially in an uncooked state. By cooking they lose much of their unwholesomeness, but should be eaten only in moderation.

Cherries are used chiefly as a dessert, but like all other fruits, are also made into pies, or boiled with sugar to make jam. Like plums they should be eaten in moderation.

Strawberries are a most delicious fruit, used as dessert and for making jam. They grow on low bushes in our gardens. A small species of strawberry grows wild in our woods. In the woods of North America they are very abundant and delicious in flavour.

Raspberries are a very wholesome fruit, and possess such an agreeable scent as to tempt us to eat them. They are seldom used alone in cooking, but in conjunction with other fruits of a more acid nature.

Currants, red, white, and black, are a most useful domestic fruit. They may be used as dessert, for pies, tarts, &c., to make jams and jellies, and are also medicinally useful. Cooling and refreshing drinks for the sick room may be prepared from them, black currant wine being a special favourite in any complaint affecting the throat.

Peaches and Apricots are not so common as any of the above fruits, and as a rule are very dear.

Gooseberries grow in abundance in our gardens, and furnish us with a useful fruit for pies, tarts, jams, and when ripe, dessert. Ripe gooseberries are very wholesome.

Blackberries grow wild in the hedgerows of our country lanes and fields. When ripe they are a most wholesome fruit. Stewed, or made into jam, they form a useful and economical addition to our stores for the winter. The juice from them boiled into a syrup, with a few cloves, makes an efficacious remedy in case of cold or sore throat.

Rhubarb, though used as a fruit, is really a vegetable. It is an excellent addition to our spring and summer diet.

Dried Fruits are the produce of foreign countries.

Raisins are the dried grapes of the Southern countries of Europe.

Currants come to us from the Ionian Isles, and are a small *seedless* grape.

Figs are grown in all the Southern countries of Europe principally. We may occasionally see them growing in England, in the hot-houses attached to large residences, but they do not reach such perfection as in their native soil.

Prunes are dried French plums. When stewed, they are an excellent addition to a children's dinner-table, and may also be made into a useful jam when fruit is scarce.

Dates are the fruit of the date-palm, which grows extensively in Arabia and Persia, and to some extent, throughout Asia and Africa. Dates are nourishing, and form a great part of the diet of the inhabitants of those countries where they grow.

Grapes, in an undried condition, are imported very largely from the Continent. They are also cultivated in specially constructed vineries in England, whilst in some of our Southern counties they grow in the open air, but do not attain such size or flavour.

Oranges claim a high place on our fruit list, though not belonging to our country. They are grown in Southern Europe, West Indies, Ceylon, and other corresponding climates. They are gathered before ripe, for exportation.

All fruits are wholesome, especially when cooked. Most of them may be eaten uncooked, but are not so digestible. Two things of a very opposite nature are found in fruit—sugar and acid. You can generally discover both when eating fruit, and you say it is both *sweet and sour*. The quantity of sugar in fruits depends chiefly upon the heat of the sun. Therefore, if we have a dull summer, we have sour fruit.

In conclusion, let me say, that if you can get a little ripe fruit to eat every day, it will be very beneficial to your health during the spring and summer months especially.

Fruit is generally very welcome to an invalid, and is often in this case eaten gratefully when food is refused.

LECTURE VI.

PART I.

BAKED MEAT.

Baked Pork.—Wipe the meat with a clean, damp cloth, and cut off any pieces necessary to improve its appearance. Put it into a dripping pan, and place it in a *hot* oven, which you may allow to cool a little when the meat has been in a few minutes. Allow twenty minutes to each pound, and twenty minutes over. This rule is for pork, as it requires more cooking than beef or mutton. Baste it occasionally. While the meat is cooking, put on a pound of onions to boil. When tender, chop them, and mix with them a few leaves of sage rubbed into powder, and a dessertspoonful of bread crumbs. Season with a saltspoonful of salt, and a little pepper. Pour the dripping from the meat, make a little gravy, put it in the pan with the stuffing and meat, and

allow it to remain a few minutes, so that the gravy and meat may catch the flavour of the onions. Put the meat on a hot dish, the stuffing by the side of it, and the gravy round it.

When baking meat, be very careful to keep the ventilator in the oven door *open*, or the meat will contract a disagreeable flavour.

Toad-in-th'-Hole.—Make a batter of six ounces of flour, one egg, and a pint of milk. Grease the dripping pan well, and lay in it, a little distance from each other, some neat pieces of meat, seasoned with a little pepper and salt. Pour the batter over them, and bake for three quarters of an hour.

This is a nice way of using up odd pieces of meat. Beef, mutton, or pork will do, but the meat must not be too lean. It must also be cut into *thick* pieces, not thin slices, or it will be very dry when done.

Poor Man's Goose.—One pound of pig's fry, two pounds of potatoes, two onions, six leaves of sage, a saltspoonful of salt, and half a saltspoonful of pepper.

Wash and peel the potatoes, parboil them, and cut them into slices. Chop the onions and sage together. Cut the fry in small thin

slices. Slightly grease a quart pie dish. Put a layer of potatoes at the bottom of the dish, a few pieces of the fry on the top of them. Then sprinkle over a little of the sage and onion, and pepper and salt. Then put another layer of potatoes, and a few more pieces of fry, a little more seasoning, and so on until the dish is full, taking care to have *potatoes* at the top. Pour in a good cup of water to make gravy. Cover the top with a piece of well greased paper, and bake for an hour Just before it is done, take off the paper, and allow the potatoes to brown on the top.

This is a very economical, tasty dish, and every poor man's wife would do well to learn how to make it.

Cornish Pasties.—Half a pound of meat, half a pound of potatoes, one onion, one pound of flour, six ounces of dripping, a teaspoonful of baking powder, a good saltspoonful of salt, and half one of pepper.

Well wash the potatoes, peel them, and wash again. Cut the meat and potatoes into very small pieces, chop the onion, and mix them all together with the pepper and salt. Put the flour into a basin, with a pinch of salt, and

the baking powder. Mix well, then rub the dripping into the flour with the tips of your fingers. Mix it into a stiff paste with cold water. Roll it out about a quarter of an inch in thickness. Cut it into pieces about six inches square. Put a little of the meat and potatoes on each piece; slightly wet the edges round, double over and carefully fasten the edges of the paste together. Lay the pasties on a greased tin, and bake rather more than half an hour. They must not bake too quickly, or the paste will be done before the meat and potatoes.

These pasties are very nice to carry to school on a wet day, for dinner, as they can be easily warmed, and are very satisfying to a hungry boy or girl. They are very largely used amongst the miners in Cornwall, who remain in the mines to dinner. But the Cornish people make them of almost anything and everything that is eatable, turnips, carrots, potatoes, and onions often forming the inside, instead of meat and potatoes. They are sometimes made of pork, potatoes, sage, onions, and apples all mixed together.

PART II.

SOURCES OF FOOD—(Concluded).

LIQUID FOODS.

Water.—This is the most important of our liquid foods, as well as the most common. It is found in all our foods, and forms a very large proportion of the bulk of our bodies. You will remember that I told you in our second lecture, how much water our blood contains. It is found, too, in the solid portion of our bodies, and serves many most important purposes.

Like all the other constituents of the body, it wastes, and needs to be replaced every day. Several pints of water are taken daily into the body, in our solid and liquid foods together. Water is very necessary to the support of life, and in countries where it is very scarce, both man and animals will travel a long way to get it, but sometimes die for want of it, before they reach it.

It is highly important that we should have good, pure water for drinking and domestic purposes. The reason that water is the best liquid

food is, that it contains so many of the *mineral* matters which form part of our bodies, but if we are not careful to obtain *good* water, it will contain other matters which would do us much harm.

Water is drawn from many sources, springs, rivers, lakes, and wells. Rain water is used more extensively in country districts and villages than in towns. The sea is the great storehouse of the earth's water. By the evaporation of its waters, clouds are formed, which descend in the form of rain, hail, or snow, and supply us with the water for our daily use. Rain water, collected as it falls, is known as soft water. When it passes through the earth, and we get it in the form of spring water, it becomes *hard*, on account of the mineral matter it has gathered from the soil and rocks through which it has passed.

In large towns, the water is collected in reservoirs on the outskirts of the town, and supplied to the inhabitants at their own homes by means of taps attached to pipes communicating with underground main pipes coming from the reservoirs. In country places, people have often great difficulty in obtaining good water, sometimes having to carry it a great distance.

We must never drink *stagnant* water, that is, water that is always standing still. Such water contains many injurious matters, both animal and vegetable. Nor should the water we use for drinking be anywhere near a cesspool, or any decaying vegetable heaps Water possesses to a very great degree the power of combining other things with itself. Thus it readily becomes contaminated, or rendered impure, simply by its *nearness* to impurities. A want of caution on this point has often caused whole districts to become infected with fever.

Milk.—It is scarcely necessary to say more than we have already stated in a former lecture about milk. It is not so much used as a drink in our country as in some others, though its value cannot be too highly estimated. If we took more milk we should require less butcher's meat.

Buttermilk.—This is a most wholesome drink, but, unfortunately, not a common one in large towns. When fresh, it is very refreshing and cooling, as well as nutritious.

Whey is a wholesome and pleasant drink, but, like buttermilk, it is little known in towns. It is the portion of the milk left after the curd is

formed for cheese-making. In farmhouses where the cheese is made of new milk, the whey is put into a copper to get hot, when all the little bits of curd rise to the top, and are called "fleetings." A basin of fleetings, sweetened with a little sugar, is a most enjoyable lunch after a morning's ramble in the fields and woods.

Tea.—Tea is the leaf of a small evergreen shrub, a native of China and Japan. The shrubs are allowed to grow to the height of about three feet, and no leaves are gathered until the plant is three years old. The gathering of the leaves takes place three times a year, in April, June, and September. The leaves of the earliest gathering are the best. Both black and green teas are gathered from the same plant, and are the same colour when first collected. The difference is imparted in the drying, black tea undergoing a slow drying process, while the green tea is dried quickly, to preserve its natural colour. Sometimes the colour is heightened by the addition of a powder, in greater quantities than is desirable for those who indulge too freely in green tea.

Tea is a very refreshing beverage, if taken in moderation, but is not good for children. It

should never be taken too freely by those who have not sufficient food, as in such cases it wastes the nervous power of the body, and causes languor. In manufacturing districts, where mothers as well as fathers go to work at the factory, tea is taken to breakfast, dinner, and tea, and given to little children just as often. This is a great mistake, and another instance of ignorance of the proper value of foods of different kinds.

Good black tea may now be purchased for two shillings a pound ; but when tea was first introduced into England, in the sixteenth century, we read of its being as high as ten guineas a pound, and consequently it was a luxury far beyond the reach of ordinary housekeepers.

Coffee is the seed of the berry of the coffee tree, which grows largely in Arabia, East and West Indies, and Ceylon.

A plantation of coffee trees in blossom is a very beautiful sight. The tree bears a beautiful white flower, which grows in bunches. The fruit is much like our own cherries in appearance. The seeds, or beans, are of a dirty white, inclining to a palish green colour when fresh, and are rendered brown, as we buy them, by roasting.

Coffee is better than tea for poor people, who do not get sufficient solid food.

A cup of strong coffee will cause sleeplessness, and is often taken by those who have to watch by a sick bed through the night.

Chicory, which is used in conjunction with coffee, is the prepared root of the chicory or endive plant, which grows wild in England, but is cultivated on the Continent. It has a somewhat bitter taste, and should be but sparingly used with coffee. Like tea and coffee, it is often very largely adulterated.

Cocoa.—This useful article of diet is the seed of the fruit of the cocoa tree, a native of Central America. It is largely cultivated in the West Indies. The tree bears a white blossom, which assumes a reddish tinge before falling. The fruit resembles our cucumber. When ripe, it is yellow, and the seeds are arranged within in five rows. These seeds are known to us as "cocoa nibs," and are the purest form of cocoa, all the other preparations sold as cocoa being adulterated with starch, flour, and other matters of a similar kind. You will notice the difference between a cup of cocoa prepared from nibs, and one prepared from the cocoa sold under different

names. The former is clear and more like coffee, while the latter is opaque, and thickened by the starch it contains.

Cocoa is a valuable food, very nourishing, and far better than tea or coffee for supporting life, although not so refreshing as either. It contains a large quantity of oil.

Chocolate is a preparation of cocoa, used as a beverage, but more commonly eaten as a sweetmeat, and is one of the best kinds of sweetmeats. It serves as a food to some extent, and contains none of the poisonous colouring found in common sweatmeats.

Besides these ordinary liquid foods, there are several home-made summer beverages, which are both simple in preparation, and wholesome. Of these we may mention lemonade, ginger-beer, treacle-beer, and better still, nettle and dandelion beer, which is an exceedingly valuable drink for any one of a bilious temperament. These simple beers are but slightly fermented in preparation, and are not intoxicating. Syrups prepared from ripe fruit, and mixed with water, make a cooling and refreshing drink. All these simple things may be made at home with very little trouble; but it is just "the trouble" of making

things that some housekeepers cannot get over, and because they do not try how little trouble would add much comfort and economy to their homes, they go on as usual, never dreaming that it is worth their while to *try*.

If you grow up afraid of the "little trouble" of doing them, you will know nothing of the great pleasure of having home-made things of all kinds to put upon your tables. A woman has far more to be proud of when she can say, "These cakes," or whatever it may be, "are of my own making," than when she says, "I *bought* them at such a shop, and gave so much for them."

LECTURE VII.

PART I.

FRYING.

Fried Steak and Onions.—One pound of steak, two moderate sized onions, pepper and salt, and an ounce of good dripping or butter.

Cut the onions into very thin slices, and fry them in the dripping until brown. When the onions are nearly done, lay the steak in the pan, and fry it for seven or eight minutes, turning it very often. When done, lay the steak on a hot dish, the onions on the top of it, and sprinkle with pepper and salt. Mix a good teaspoonful of flour with a pinch of salt and a teacupful of cold water. Stir it in the frying pan until it boils, then add a teaspoonful of ketchup or sauce, and pour the gravy round the steak.

Liver and Bacon.—One pound of sheep's liver, half a pound of bacon, and a tablespoonful of flour.

Fry the bacon first, and put it to keep hot. Wash the liver, cut it into thin slices, dip each slice into the flour, and fry them brown in the fat from the bacon, turning them over once. The liver must be well done, or it will not be nice. To know when it is thoroughly cooked, cut a piece through. If not done, it will look red in the middle, instead of a light brown. Place the pieces of liver in a heap on a hot dish, with the bacon round them. Mix a tablespoonful of flour with nearly half a pint of water and a pinch of salt, and stir well in the pan until it boils. Pour it on the liver as gravy.

Fritters.—Three ounces of flour, a dessert-spoonful of salad oil, the white of an egg, a gill of water, and some fruit or meat. Put a pound of lard or dripping to get hot, in a shallow sauce-pan.

Put the flour in a basin, mix the salad oil with it, and add the water gradually, so as to make a very smooth batter. Put the whole of the egg on a plate, with a pinch of salt, and with a knife whip it to a stiff froth. Stir it very lightly into the batter with a wooden spoon. Now peel some apples, cut them into slices, not too thin, take out the core, dip each slice well into the batter,

and drop them into the saucepan, to fry a light brown. To know that the fat is hot enough to fry them, drop a piece of bread into it, and see if it browns quickly. When the fritters are done, take them out with a slice, and lay them on paper to drain for a few minutes before serving them.

Fritters may be made of meat, bread, or fruit. When large plums are used, the stones must be taken out.

No doubt some of you think it seems very extravagant to use so much fat to fry the fritters in. So it would, if I merely used it and had done with it. But I shall use it several times more for the same purpose, and thus it will cost no more than using a small quantity each time.

Savoury Omelet.—Two eggs, one ounce of butter, a pinch of salt, a pinch of pepper, and half a teaspoonful of finely chopped parsley.

Put the butter to melt in a small frying pan. Break the eggs into a basin, and slightly beat them up with the parsley, pepper, and salt. Pour the mixture into the pan, and stir it briskly until it begins to set, then allow it to cook for one minute, then double it, and shake it off on a hot plate. While the omelet is cooking, pass a knife

round the edges of it, and shake the pan, to keep it from sticking.

Sweet Omelet may be made in various ways. This is a simple one. Two eggs, a very small pinch of salt, a good sprinkling of sugar, two or three drops of essence of vanilla or lemon. Melt an ounce of butter, and fry as above. If a jam omelet be required, spread a dessertspoonful of jam on one half the omelet before doubling it over. Sweet omelets must always be sprinkled well with sugar when ready for eating.

Nothing requires so much despatch in cooking as an omelet. Omelets are easily made, but more easily spoiled, if not cooked to a nicety. They must never be made until wanted, or they cannot be served hot and light.

PART II.

RELATIVE NUTRITIVE VALUE OF COMMON FOODS.

This morning I want to show you the relative nutritive value of our common foods, so that you may know which of them afford us the most nourishment. First of all, we will compare the different kinds of butcher's meat.

Beef is more nourishing than mutton, because it contains more fibrine, therefore more of the nourishing juices, and less fat than mutton. But mutton is the more digestible of the two. A man who has to work hard, will be better sustained by beef than mutton.

The flesh of all young animals is less nourishing than that of mature ones, therefore veal and lamb, for which we often pay a high price, do not afford us the same nutriment as beef or mutton. The flesh of young animals contains much more water, and less of the nourishing juices of the flesh. Veal is very indigestible, since it is not so capable of thorough mastication as beef or mutton.

Pork is far from beef or mutton in point of nutriment. It contains more fat than any other kind of meat. It is eaten very largely in some agricultural districts, where nearly every one keeps a pig. It is a useful food in these districts, where there is often difficulty in obtaining butchers' meat, as it can be salted and kept for some time.

Some of the internal organs of animals, heart, liver, and kidneys, are nutritious, but indigestible. Tongue is very nutritious, and more easily digested than heart or liver.

Fish is a food which oftens takes the place of meat in daily diet, but we must eat twice as much fish as meat to obtain the same amount of nourishment. It is a fact that some of the cheaper kinds of fish contain more nourishment than most of the more expensive ones. Haddock, herrings, plaice, and mackerel are examples. Fresh herrings contain the largest amount of nutriment for the least cost. In countries bordering on the sea, where fish is plentiful and cheap, it takes the place of meat almost entirely among the poorer classes, who, however, are not so strong as those people who eat flesh.

Cheese contains more flesh-forming material than meat. There is as much nutriment in a pound of double Gloucester cheese, as in three pounds of meat; but it is not proper to substitute cheese for meat every day, as it is very indigestible.

We will now try to find out which of our vegetable foods affords most nourishment.

We must place *bread* first on the list of our ordinary vegetable foods, as affording us the most nourishment. This assertion applies, of course, to pure, home-made bread, which is free from the unwholesome adulterations of bakers'

bread. Bread is the Englishman's staff of life It is taken with every meal, which cannot be said of all our foods. The Hindoos, and other nations, who substitute rice for bread, are much inferior in bodily strength to our English navvies, who eat large quantities of bread, and who always make it an important business on changing their districts of work, to secure the best bread the neighbourhood can supply.

Potatoes, though a common and favourite food, are very deficient in nutriment, as they contain so much starch, which you now well know is a warmth-giving food. A pound of bread is equal to three and a half pounds of potatoes in nutriment.

Turnips contain a very large amount of water, but what remains after the water is extracted by boiling, is very nourishing.

Carrots and Parsnips are more valuable than turnips as food, on account of the sugar they contain.

Green vegetables, such as cabbage, greens, salad, &c., do not contain much nutriment, but are valuable on account of the mineral matter they contain.

Of all vegetables, beans and peas contain the

most nutriment, and yet they are comparatively little used. If they were more extensively introduced into the daily diet of the poorer class, the lack of animal food would in a great measure be met, one pound of beans being equal to three pounds of lean beef in flesh-forming material. They are used more frequently in agricultural districts, where the labourers have a garden attached to their cottages, and grow peas and beans, as well as feed a pig and cure the bacon. Beans and bacon form a common dinner in such districts, and a very sensible one too, for while the beans supply the flesh-forming material, the bacon gives the warmth-producing food in the fat which it contains.

Looking carefully into the relative nutritive value of our foods, we shall see that it is quite possible to do without butchers' meat, and yet keep strong and well. If we could all make up our minds to live without butchers' meat for a given length of time, it seems to me we might have adopted the most effectual means for reducing its price. Vegetarians are people who live without eating animal food. They take bread and oatmeal, plenty of vegetables, milk, cheese, eggs, and fruit. Several whom I have

known, bear good testimony to the fact that it is possible to live entirely without animal flesh, and yet keep strong and healthy.

But in the question of food, we are creatures of *habit*. We accustom ourselves to a certain kind of food, and then imagine that no other kind would serve the same purpose. Therefore, when that one kind fails in its supply, we can seldom adapt ourselves to the circumstance, by substituting another. This is, in most cases, the result of *ignorance*, as well as prejudice. A Hindoo eats more rice than anything else, an Irishman more potatoes. These being their chief foods, they do not turn their attention to the cultivation of any other kinds, and when these fail through disease or want of rain, there is a famine. No doubt, if animal flesh failed in England, the majority of English people would at once arrive at the conclusion that we should with great difficulty keep alive.

Now, if every Englishman, and woman too, could be taught that a pound of beans contains as much nourishment as three pounds of lean beef; and if every Irishman and woman knew that four pounds of beans contained as much nourishment as fifty pounds of potatoes, does it

not seem likely that they might be induced to overcome the habit they have formed of looking to one food as their chief sustenance, and thus be spared, in a great measure, the evils and misery arising from failure of that one kind? It is a great pity that the poor Hindoo has nothing to look to when the rice crops fail. But there would be great difficulty in persuading him that anything was equal to rice. A friend of mine, who has resided in India most of her life, tells me that the Hindoos are good cooks, and can prepare and serve up a dinner of soup, meat, fowls, pastry, &c., as well as anyone could wish, but the Indian cook would not exchange his rice for any of the dainties he prepares for his master's table.

Of the relative value of tea, coffee, and cocoa, we need say but little. Cocoa is the most nourishing, a cup of cocoa containing thirteen times as much nourishment as a cup of tea. It is far better than tea or coffee for children to drink, but it is not suitable for an invalid, on account of the fat it contains.

Tea is more refreshing than coffee or cocoa. It opens the pores and makes us perspire. This is why we feel cooler after drinking a cup of tea

on a hot summer's day. Coffee is more heating to the blood than tea. It makes us hot without causing perspiration.

I am glad you have paid such attention to the few simple facts stated this morning. They are worth due consideration, for "How to live, so as to keep strong and well, for the smallest possible cost," is a question which should be solved by everyone whose income is limited, and who is anxious to save a little if possible. It is a great advantage to you, to be brought to consider these things while you are young, and I sincerely hope you will make the most of the privilege you have.

One of the questions which I shall give you for your exercises this week, will lead you to think how you can live without butchers' meat, so as to keep strong and well.

LECTURE VIII.

PART I.

BROILING.

Mutton Chops.—For broiling, a chop should be cut rather thick, and the fat nearly all taken off. Make the gridiron hot, and rub over it a little salad oil or butter, to prevent the chops from sticking to it. Hang the gridiron in front of the fire so that the chops may be quickly cooked. If cooked slowly, all the gravy would be drawn out, and the chops would be dry and tasteless. Broil for three minutes on each side, taking care that the fire is clear and smokeless. When done, place the chops on a hot dish, rub a small piece of butter over each one, and sprinkle with pepper and salt. If you like it, a little finely chopped parsley may be mixed with the butter.

Steak.—For broiling, a steak must be cut

thick, and should be a rump steak or it will not be tender. It may be cooked in the same manner as the chops, but will take from five to six minutes on each side. A mushroom cooked with it is a very nice addition to a broiled rump steak.

Bacon.—Cut the bacon into thin slices, and take off the rind, cutting it very close, so as not to waste the bacon Just cook it nicely through, without drying or burning. With a clear fire, a minute and a half on one side, and a minute on the other is quite sufficient. If cooked until it becomes brown and crisp, bacon loses its flavour, and is very tasteless.

Kidneys.—Cut them in halves from the thick side, but do not cut them quite through. Broil for about four minutes on each side, place them on a very hot dish, with a small piece of butter between each, and sprinkle with pepper and salt. Kidneys require to be well done. Broiled bacon and kidneys are often served together.

Mushrooms may be cooked in the same manner as any of the above. Large ones are preferable to small ones for broiling.

Grilling is similar to broiling. When anything is intended to be grilled, the gridiron is placed

over the fire instead of in front. Care must be taken to have a very clear fire, quite free from smoke, and the chop or steak must be turned every minute. Many prefer this mode of cooking to broiling. The meat certainly acquires a more tasty flavour, and if carefully grilled, will retain all the juices except the fat. Great care must be taken not to insert a fork in the lean part when turning the chop or steak, or the gravy will run out. Very small tongs are better for turning.

PART II.

HOW TO BUY FOOD.

We are all well aware of the fact that we must *buy* our food before we can cook it. This fact does not often cross the minds of children, *their* chief concern about food being the *eating* of it. But girls of the ages of most of you should begin to think just a little about "How to buy food." It is quite possible to waste a good deal of money by not knowing how to purchase the best kinds of foods. I shall try this morning to give you some rules and

hints, which may perhaps be of service to you in years to come As we have rather more time than usual for this part of the lecture, I shall go through it very slowly, so that you may take down as much as possible in your note books.

How to tell when Meat is good.—Good meat is of a deep-red colour. with the fat firm. and not greasy looking. When the lean of meat is of a pale pink colour, it is a sign of disease ; when of a purple hue, it shows that the animal has died a natural death not having being slaughtered for food, but very wrongfully exposed for sale as meat, after dying, probably, of fever.

Good meat has a *marbled* appearance, that is it is streaked with fat, just as you have seen a piece of marble streaked with another colour.

Good meat is firm to the touch, and adheres firmly to the bones it contains. It has very little odour, and that not disagreeable. It does not become moist on keeping, and when cooked does not shrink much.

In the present day, when meat is so dear, it is well not to be tempted to buy that which is offered for sale at a price much below the general one, since it is almost sure to lack some of the good qualities we have mentioned.

Fish.—A proof of freshness and goodness in most fish is, their being well covered with scales. The absence of scales shows that the fish are stale, or that they have been roughly handled. Fresh fish are stiff and firm, having a bright silvery look.

Fowls.—Considerable care must be exercised in the purchase of fowls, or the disappointment afterwards will be very great.

Choose one with short spurs, a full fat breast, a delicate, transparent skin, and a smooth pale comb. If for roasting, choose one with black legs.

Turkeys.—A young cock-turkey, which is decidedly the best, may be known by its smooth black legs, and short spurs. When fresh, the eyes will be full and bright, and the feet soft and pliable.

Geese.—Young geese have yellow beaks and feet; old ones, red. The leaf or fat (which is generally put outside when the geese are plucked ready for sale) is whiter in a young goose than in an old one. A good goose will have a plump breast, in addition to these characteristics.

Ducks.—These should have a plump breast, and soft pliable feet. If the eyes look fresh and bright, it shows that the duck is fresh killed.

When purchasing poultry, it is wise to deal with a respectable poulterer, whose word may be depended upon. There are so many tricks adopted for making birds appear what they are not, that it is quite possible for you to be imposed upon, if you cannot take the tradesman's word. For instance, dealers will sometimes cut and scrape into shape again the long spurs of an old turkey, so as to make it appear young, or they will beat up the breast bones, so as to make them appear plump.

Hares.—Young hares have soft tender ears, sharpish claws, and the parting in the lip close. When you go to buy one, look at the lip and claws, then take hold of the ear and see if it tears down easily from the tip. Don't allow the salesman to tear it for you, but do it yourself, as they can often tear the ear of an old hare very easily. Choose one that is long in the body, and thick across the back.

Rabbits.—Young rabbits have brown fur, old ones grey. When fresh, they are stiff, and the flesh pale and dry. The fat round the kidneys is white and fresh-looking in a good rabbit.

Vegetables.—Potatoes should be smooth outside, and white inside. Before purchasing a large

quantity, it is well to take a few and try them, to see if they boil well.

Green Vegetables must be very crisp and green, not faded-looking, or you may be sure they have been gathered some time.

Fruit must be sound, or there will be great waste in it. Unripe fruit requires a large quantity of sugar in cooking, and is not wholesome.

Flour.—This is a most important purchase, for if we have bad flour, we cannot have good bread. New flour is not so economical as older flour, it is not so dry. When flour is cheap, it is well to buy a sack, because it improves in keeping. When you are about to purchase flour, take a handful and examine it. If good, it will have no unpleasant musty smell, will be soft and smooth to the touch, without feeling greasy or gritty, and will have a slightly yellow tinge.

Groceries.—Always purchase groceries at good shops, where they do a large trade, and are sure to have everything fresh, and of the best quality. There is no very great advantage in purchasing large quantities of groceries, unless you have a very good dry room to store them in, there are so many things amongst the groceries that lose

their strength and flavour, if not properly stored.

Having looked at all these things separately, it will be as well to have a few *general* rules for marketing, which will apply to everything we may have to buy.

(1) Always go with your money in your hand when going to market: you can then purchase your goods where you like. If you go without money, you must go probably to some poor little shop, where you are known, and will be obliged to take just what they have got, although it may not be just what you want.

(2) Deal with respectable tradesmen; you are then sure to get your money's worth. A tradesman with a good connection cannot afford to sell a bad article—it would injure his reputation, and his large stock would spoil for want of customers. A large tradesman is constantly replenishing his stock, and the goods are not kept long enough to lose their value, as they generally are in *very* small establishments.

(3) Don't make a rule of trotting all round the market hunting bargains, or you will most

likely find that you have been trapped into buying a piece of unchewable meat, or something not worth even the little you have given for it. Bargains are very rare things. Poor people are tempted to buy goods from shops which profess to give "presents" with purchases, thinking it must be a bargain. Now if they would just sit down and consider how it is that every tradesman cannot afford to do this, I think they would see very plainly that, if they buy a pound of tea for one-and-eightpence, and get a present worth sixpence, the tea must be of an inferior quality, and that they pay for the present as well as the tea.

(4.) Before going to market, consider what you really want, so that you may not buy what you can do very well without. Many a working man's wife wastes his hardly-earned money from want of consideration on this point. She sets out to market with the money in her hand, spends a large portion of it in things which she really could do without, and goes home short of something very necessary to the comfort of the home during the week.

The hints and rules I have given you this

morning are very simple and such as you can easily understand. While talking to you, I have been very much reminded of the time when I was a school-girl, and had all these things taught to me by my mother. It would be impossible for me to tell you how useful they have been to me since I kept house, and how often I have felt thankful for the privilege of learning them when young. You know it is often more difficult to learn things when we grow older, and not so easy to find any one to teach us, as our mothers or teachers when we were girls.

It is a great advantage in house-keeping to make all you can at home. This is especially the case with bread. Home-made bread goes much farther than bakers' bread, and is much more wholesome.

LECTURE IX.

PART I.

COLD MEAT COOKERY.

Hash.—One pound of cold meat, two onions, one carrot, a small bunch of herbs, half-an-ounce of butter, a tablespoonful of flour, a dessert-spoonful of ketchup, a good saltspoonful of salt, and half one of pepper.

Chop the bones of the meat into small pieces and put them into a saucepan, with enough water to cover them. Add to them the herbs, one onion, and the carrot, washed and scraped and cut into slices. Allow them to simmer an hour-and-a-half, then strain the gravy from them and add the seasoning. Cut the other onion into thin slices and fry it brown in the butter. Add it to the gravy, together with the flour mixed to a smooth paste ; stir well until it boils, then add the ketchup. We have now made

some good gravy, and all that remains to be done is, to cut the meat into nice slices, put it into the gravy, and allow it to get hot *without boiling*. The meat is already cooked and does not require further cooking—merely making hot. The greatest mistake in making hash is to cook the meat by boiling it. It becomes hard and tasteless, thus spoiling what ought to be a nice hot dinner made from cold meat. The bones may be boiled over again in a vegetable soup, as it takes a long time to extract all the goodness from bones.

Shepherd's Pie.—Some pieces of cold meat, one good-sized onion, a good saltspoonful of salt, half one of pepper, two pounds of potatoes, one ounce of butter, and half a gill of milk.

Wash, peel, and boil the potatoes, with a teaspoonful of salt. When done, mash them well with the milk and butter, which must be warmed together before putting them to the potatoes. Cut the meat into slices, not too large, and chop the onion. Put a layer of meat into the pie dish, sprinkle over it a little of the onion, pepper, and salt, then put another layer of meat, a little more of the seasoning, and so on until the dish is full. Now pour in a cup of

cold water, or stock, or a little gravy, if you have it. Lay the mashed potatoes on the top, and, with a broad knife dipped in flour, smooth them over, making them look as much like a pie crust as possible. Mark the edges all round as you would a crust of pastry, and decorate the top by scoring it across with the knife. Bake in a quick oven for about half-an-hour. If you have an egg broken for making a pudding, take just a dip of it and brush the top of the pie over when nearly done. This will glaze the potatoes and help to brown them, so that when done the pie will look as if it had a crust of pastry, as you will see when this is done. This is an excellent way of using up cold meat.

Rissoles.—Two ounces of cold meat, two *small* tablespoonfuls of suet, four tablespoonfuls of bread crumbs, two dessertspoonfuls of parsley, a teaspoonful of leaves of thyme, two eggs, half a teaspoonful of salt, and half a saltspoonful of pepper.

Chop the meat, suet, and parsley, measuring them all after chopping. Now put into a basin the chopped meat, suet, and parsley, with *two* tablespoonfuls of the bread crumbs, the thyme, made dry and rubbed very fine, the pepper and

salt. Mix all well together, and bind them with one egg. Break the other egg on a plate and put the remainder of the bread crumbs on a piece of clean paper. Flour your hands, roll the mixture into little balls, egg them over, roll them in the crumbs, and fry in hot fat until browned. Lay them on paper to drain the fat off before putting them on a hot dish. The fat must be put on to get hot while you are making the rissoles, and must be sufficient to cover them well. You can tell when the fat is hot enough by throwing in a bit of bread to see if it browns quickly.

Curry.—Half-a-pound of cold meat, an ounce of good beef dripping, one onion, one apple, a small dessertspoonful of curry powder, and a saltspoonful of salt. Chop the onion and fry it brown in the dripping. Strain it, put the onion on a plate, and the dripping back into the sauce-pan. Cut the meat into very small pieces, and fry it brown in the dripping. Now stir in the curry powder and salt, put back the browned onion, add the apple, which must be finely chopped, and half-a-pint of water. Stir well until it boils, then draw it to the side and allow it to simmer for half-an-hour with *the lid off*, so

that the water may become reduced. Put it in the middle of a hot dish, with some well boiled rice all round it.

Curry is not a favourite dish in England, as it is in India, where curry powder is introduced into very many prepared dishes. But we do not get such good well-flavoured curry powder here. The Hindoos gather the seeds, grind them, and make their own powder, as they want it. I tasted some real Indian curry a short time ago, and the difference between that and this was very great.

Just a few words about cold meat cooking. I could extend this demonstration until we had a table full of dishes prepared from cold meat, so many ways are there of using it. But since our time will not allow me to go further, I must try to impress upon you the fact that you need seldom have a cold dinner if you will only take the trouble to prepare a hot one from the cold meat, instead of putting it on the table as it is. Try to remember, then, that a little trouble will give you a hot dinner every day without buying a fresh joint of meat to roast.

PART II.

THE DIFFERENT MODES OF COOKING MEAT, AND JOINTS BEST SUITED TO THEM.

Roasting.—This is the most wholesome way of cooking though not the most economical, as there is most loss of weight by roasting. It is not at all suited to very small joints of meat, because it dries and hardens them. For roasting, legs, shoulders, and loins of *mutton* are best, whilst the sirloin, fore-ribs, middle-ribs, the round, or rump, are the best parts of *beef* for the purpose.

In roasting meat, take care to baste it often with the dripping which falls from it. This keeps it moist, and prevents the outside from hardening.

Baking closely resembles roasting in the effect it has upon the meat. It is also more economical, as the meat loses less weight than in roasting. All joints suitable for roasting may be baked, and if properly done, there is very little difference in the taste of the meat. Great care must be taken to keep the ventilator of the oven open, and to baste the meat occasionally.

Those who bake their meat generally, should be very careful what they put into the oven. A careless servant will sometimes put the firewood in the oven to dry, leaving a tiny piece in until it scorches. The oven catches the flavour of the wood, and imparts it to the meat when put in to bake.

Broiling is similar in its effects to roasting. It is the quickest way of cooking, but can be applied only to small cuts of meat, like chops or steaks.

Frying.—This is a good mode of cooking, but very often improperly performed. Most working men's wives have a frying-pan, but very few know how to use it. They put a piece of meat into a cold frying-pan, and put it on the fire just as it is. The gradual heating of the pan draws out the gravy, leaving the meat dry and tough. *Whenever* you are going to fry, and I may say *whatever*, too, always put the pan to get warm, with a little dripping or butter in it. Put your chop or steak into it, and the heat of the pan will close the pores to keep in the gravy, whilst the melted fat will keep it from drying. Do not finish it on one side before turning, but turn often as in grilling.

When properly done, frying is a simple, quick, and wholesome way of cooking meat, but if improperly done, it renders the meat most indigestible. Like broiling, it is suited only to small things.

Boiling is a very wholesome way of cooking meat, but requires careful doing. It is more economical than roasting, because the liquor in which meat is boiled is used for soup. As I told you in our lesson on boiling, it must be done very gently, or the meat will be hard. Legs are the finest joints of mutton for boiling, if you wish to have a really good dish of boiled mutton. If you are boiling more for the sake of the broth, the neck answers very well, and may be bought much cheaper.

There are many joints of beef which are only fit to boil. The best boiling pieces are the aitch-bone, the thick flank, the buttock, and the brisket. The last named is usually salted before boiling.

Stewing is the most economical way of cooking, as many pieces of meat which would neither roast nor boil well, may be stewed to advantage. It is very similar to boiling, but takes a much longer time, on account of the

very gentle manner in which it must be done. A little meat may be made to go a long way by stewing. Take, for example, a pound of the shin of beef. This, you know, is a very sinewy part. It would not be eatable if you roasted it; very little better if boiled; but, if cut into pieces, and stewed very gently for four hours, with enough water to cover it, a carrot, turnip, and onion to flavour it, it would give you a dish of tender meat, smothered with the rich gravy it had made, whilst you would have all the nourishment the meat contained.

I must not conclude these remarks on the various modes of cooking, without saying a word in praise of the stock-pot, which, when kept filled, is a most useful addition to every mode of cooking. It not only uses up bones, bits, and scraps which would probably be wasted, but furnishes you with something to make a basin of soup from, gravy for meat, stock for making gravy in cold meat cookery, and many other little things which no one knows of if they do not keep a stock-pot.

It is not necessary to buy a brass or enamelled pot, in order to have stock at command for so many purposes. A large brown

earthenware jar with a cover will do very well. All bones should be saved for the stock-pot, bones out of roast meat, chops, fowls, rabbits, *after* they have been cooked, I mean. Little bits of meat, all trimmings off the meat, and little pieces of vegetables, will all stew together, and make a good nourishing stock, so useful that once having tried it, you would not like to be without some.

LECTURE IX.

PART I.

AUSTRALIAN MEAT.

Meat Pie.—A two-pound tin of Australian mutton or beef, three quarters of a pound of flour, quarter of a pound of dripping, one teaspoonful baking powder, pepper and salt.

Cut the meat into nice-sized pieces, season them with pepper and salt, and lay them in a pie dish with the jelly that is in the tin. Rinse the tin out with a cup full of lukewarm water, which you can pour into the dish to make gravy.

Put the flour into a basin with the baking powder and a pinch of salt. Mix it into a stiff paste with cold water. Flour the board, roll out the paste, lay half the dripping on it, double it over so, roll it well out again, put the remainder of the dripping on, double it as before, and roll out again, not too thin. Now cut a strip of

paste ; lay it round the edge of the dish, first wetting the dish slightly, and taking care tc put the *cut* edge of the paste outwards. Now cut a piece of paste as near the size of the top of the dish as possible, slightly wet the edges, and lay it on, pressing it together very lightly, so as not to spoil the edge of the pie. Cut it round quickly so, holding the handle of the knife towards the dish, and the point outwards ; if you hold the point towards the top of the pie, you will cut it with the edge sloping to the top, and when baked it will not look nice. Ornament the top with a few leaves and roses of paste, and bake for half-an-hour in a quick oven.

There is generally a quantity of dripping round the Australian meat, which is perfectly good, and may be used for the paste.

Mince, with Potato Wall—A pound-and-a-half of potatoes, about a pound of Australian minced meat, an ounce of butter, half a gill of milk, a tablespoonful of ketchup, a saltspoonful of salt, and half one of pepper.

Wash and peel the potatoes, and put them on to boil, with a little salt. When done, mash them well, with the butter and milk just warmed together beforehand. Put the mince into a

saucepan with the ketchup, pepper, and salt, and stir until it is hot. Make a wall of the potatoes round a hot dish, ornament it with a knife dipped in flour, pour the mince into the middle, and brown the potatoes slightly in front of the fire. If liked, a little parsley and thyme, chopped together, may be added to the mince before taking it out of the saucepan.

Savoury Hash.—A pound of Australian mutton, an ounce of butter, a small onion, a good half ounce of flour, a tablespoonful of the vinegar from pickles, a teaspoonful of parsley and thyme together, a dessertspoonful of ketchup, pepper, and salt.

Fry the onion brown in the butter, stir the flour to it, rinse the meat tin out with half-a-pint of warm water, which must be stirred into the saucepan with the flour and onions, and boiled for two minutes. Now stir in all the other ingredients, the meat being cut into pieces. Remove the saucepan to the side and allow it to remain long enough for the meat to get hot, then put the meat on a hot dish and strain the gravy over it.

Rissoles.—Half-a-pound of Australian meat, a teaspoonful of chopped parsley, a few leaves

of lemon thyme, dried and powdered, a salt-spoonful of salt, half one of pepper, half-a-pound of flour, three ounces of dripping, one egg, and about two ounces of bread crumbs.

Chop the meat very fine, mix with it the parsley, thyme, pepper, and salt. Put the flour into a basin with a pinch of salt and a salt-spoonful of baking powder. Mix them well together, then rub in the dripping. Make into a stiff paste with cold water. Roll out to about the thickness of a shilling. Cut it into pieces about four inches across, with a round cutter. Lay a little of the meat in the middle of each piece, wet the edges slightly round with a little of the white of the egg, double over, and fasten well, so. Brush the rissoles over well with the egg, roll them well in the crumbs, and fry them a light brown in clear fat, which you see I put on to get hot whilst making them. Lay them on a piece of paper to drain, then dish them up prettily with a few sprigs of parsley.

Australian meats may be used in other ways besides these, and may be made very palatable if properly done. The great mistake often made in preparing them is, that they are cooked again in the preparation. This is quite unneces-

sary, as they are already cooked too much, if anything, when we buy them. They merely want making hot. In each of the preparations I have shown you this morning, the meat has not been subjected to the heat long enough to cook it over again. The pie-crust was baked too quickly for the meat to cook; the meat was not put into the hash until the gravy was quite made; and the paste of the rissoles was fried so quickly, that the meat inside had only just time to get hot. And so it must be with Australian meats in whatever way prepared.

Many people object to these tinned meats, on the ground that they have been put in tins for exportation, merely as a means of disposing of very inferior meat; but I am assured by some one who has resided several years on an Australian farm, that our fears on this point are groundless. The sheep and cattle are reared principally for the value of their wool and hides, which you know form a very important portion of the exports of Australia. Therefore, the flesh of the animals is a very secondary consideration. At the same time they are well fed or the wool and hides would deteriorate in value. The meat-preservers

are supplied with the best of meat at a very small cost, and my friend assures me that an inferior animal, or one that had died of disease, would not be worth the trouble of offering for sale. The great fault I personally find with Australian meats is, that they are so much cooked. I am afraid we get the meat, whilst the nourishment it should contain remains in Australia. At this rate, it is really not cheaper than our English fresh meat. It is useful on many occasions, because it is ready cooked ; but I hope no one I give these lectures to will ever use it just to save themselves the trouble of cooking. You smile at my mentioning again the *trouble* of the cooking. But never mind, I shall feel that I have *gained a point* which I hoped to reach, if I can impress upon you the fact that cooking is a pleasurable duty, and not a trouble unless you choose to make it so.

PART II.

CONDIMENTS AND SPICES.

To-day we will have some conversation about the contents of the cruet-stand and

spice-box. They are very often in request, and it is well we should know something about them.

Speaking as a whole of the substances which we use for seasoning our food, we call them *Condiments.* You can all tell me why we use them. To make our food more palatable, help it to digest, and sharpen our appetite. Condiments will do all this for us if we take them in moderation, but if we take them to excess they will do us harm, by injuring the thin coating of the stomach.

The condiments we most commonly use you will tell me are salt, pepper, mustard, vinegar. I need say nothing here about salt, as you heard all about it in a former lecture.

Pepper.—The pepper plant is a little creeping shrub, grown in the East Indies. The berries grow in bunches very much like our garden currants. When ripe they are red, but are gathered for use while yet green. In drying, they become black, as you see them here. When ground just as they are they make black pepper. White pepper is the same thing, but is made white by rubbing off the outer husk of the berries before grinding. Cayenne pepper is a pod from the plant called Capsicum. The pods

are of a bright red colour as you see, and when ground are used when we require something hotter than ordinary pepper.

Mustard is the seed of a plant which grows wild in many parts of England, much to the annoyance of farmers, who often find it amongst the crops. You see how small the seeds are. In the County of Durham mustard is cultivated. You know the difference between a wild plant and a cultivated one. The seeds are ground into this yellow powder, which we mix with water to eat with our food. Like all other powdered articles, mustard is adulterated.

Vinegar is made chiefly from malt, by brewing it and allowing it to ferment, exposed to the air until it turns sour. Sour wine makes good vinegar. This is one of the condiments that must be taken very moderately, as it contains so much acid, which is injurious to the stomach. Vinegar is very useful for cooking purposes. By dipping them in vinegar some of the coarser kinds of meat may be made more tender when cooked. It is also very useful for sharpening the taste of many otherwise insipid preparations of food. A little vinegar put into the water, will make boiled fish more firm when done.

Nutmegs are the produce of a tree somewhat resembling the pear tree. They are the kernels of the fruit, which is about the size of a peach. A good nutmeg may be told by its weight. If light it shows that holes have been made in it for the purpose of extracting the oil, or that it has been eaten by the nutmeg insect.

Mace is the husk which surrounds the nutmeg. Here is a piece almost unbroken. You see the nutmeg fits into it.

Cloves are the undeveloped flowers of the clove tree. You see they resemble little nails, and they take their name from the French word "*clou*," a nail. The flowers are gathered when red, and while yet in the bud, as you will gather from the word *undeveloped*, which means not fully opened. When gathered, they are exposed to the smoke of a wood fire, and afterwards dried in the sun, thus giving them the colour we see them now. They, too, are grown in the Moluccas, or Spice Islands.

Cinnamon is the inner layer of the bark of the cinnamon tree, growing chiefly in Ceylon.

The bark is stripped in April and December, the inner layer, which is thin, is cut into pieces, curled as you see this stick of cinnamon, and

dried in the sun. Good cinnamon is a light colour.

Ginger is the root of a plant. The best kind is grown in Jamaica. It is a very useful spice for household purposes, as it imparts a very agreeable flavour to puddings, cakes, &c.

Pimento, of which I have a specimen here, is said to possess the flavour of all the other spices combined. It is grown in Jamaica, and used chiefly in the manufacture of pickles.

We must not omit to mention the medicinal value of condiments and spices. With a well-filled spice-box, and a supply of all that the cruet-stand contains, we have at command simple remedies for many of the little ills to which we are liable. But it is necessary to know how to use them, or they are of little service to us.

Mustard is a most useful remedy in many cases of illness. Most of you know what a mustard poultice is. It is applied in cases of inflammation. Every one should know how to mix one. Mustard is a very effectual emetic. You may not know what an emetic is. Speaking very simply, it means something to make you sick. If by some mistake any of you had taken

poison, a doctor would give you an emetic as quickly as possible, so as to bring the poison off the stomach before it had time to mix with your blood and kill you. There is no time to be lost in such cases, and something must be done before the doctor arrives, if he has far to come. It is very sad when people do not know what to do. Put down in your note books that a tablespoonful of mustard in half-a-pint of warm water, taken during a quarter of an hour, is a safe, and often an effectual remedy, in simple poisoning.

Salt is also used as an emetic when dissolved in warm water. Salt water baths are strengthening. I know several weakly children who have derived much benefit from having their backs well sponged with cold salt water every morning. Cold water with salt dissolved in it is a good thing for a sprain.

Vinegar is a very useful household remedy in many instances. Cloths dipped in vinegar and water, and applied to the forehead, will often relieve an ordinary headache. If a person should faint, bathe the forehead with a little vinegar, and also apply it to the nose. The best way to do this, is to rub a little over your

hand, so, and hold it close to the nose. The heat of the hand brings out the sharpness of the vinegar, and thus makes it more powerful than if you held a bottle of vinegar to the patient's nose.

Vinegar is very useful in cases of fever, owing to its cooling properties. It is exceedingly refreshing to a fever patient to be sponged with a little vinegar and water. In this case, do not use the water *quite* cold, but just milk warm, as it would be very dangerous to give the patient a chill.

Pepper.—An infusion of pepper is a good thing for a sore throat. When the throat is ulcerated, a gargle of *cayenne* pepper should be used. You know what a *gargle* is, but perhaps I ought to explain to you what an *infusion* means. An infusion is made by steeping a substance in water, hot or cold, so as to extract what is commonly called the "goodness" from it. You will all be ready to tell me that the most common infusion we use every day is *tea*. When we extract "the goodness" from any substance by *boiling* it in water for any length of time, the liquid is then called a *decoction*. If any of you should ever have much to do with

sickness, the doctor might possibly say, "The medicine I send must be taken in an *infusion* of camomile flowers, or a *decoction* of dandelion roots," so now you would understand what he meant.

LECTURE XI.

PART I.

FISH.

Boiled Fish.—Wash and scale the fish, cut it open, take out the inside, also the eyes Lay it on the strainer, and place it in the fish-kettle, so as to be well covered with the water, which should be warm, but neither boiling nor hot, or it will crack the skin of the fish before the middle gets warm, and by the time the fish is done the skin will probably have peeled off in many places, thus making it look very ugly when done. Add salt to the water before putting the fish in, and a tablespoonful of vinegar will also help to keep the fish firm. Boil from twenty minutes to three quarters of an hour, according to the size of the fish. You may tell when it is done by the skin beginning to crack. Small fish, such as herrings or mackerel, should be put

into boiling water, and boiled for a short time only. All fish must be boiled *gently*.

Cheap Sauce for Boiled Fish.—Mix a dessertspoonful of corn-flour into a smooth paste, with two tablespoonfuls of milk. Add to this half-a-pint of the liquor in which the fish has been boiled. Stir well over the fire until it boils, then add a tablespoonful of finely chopped parsley, and if necessary, a little salt, remembering that the fish liquor had salt in it.

Baked Haddock.—Prepare the fish as for boiling, and wipe it quite dry. Make a stuffing of two tablespoonfuls of finely-chopped suet, two of bread crumbs, a teaspoonful of chopped parsley, half a teaspoonful of thyme, a saltspoonful of salt, and half one of pepper. Mix well together and moisten with a tablespoonful of milk. Stuff the fish with it, and sew it up. Now grease a baking-tin well with dripping. Egg the fish over and roll it in bread crumbs. Lay it on the tin with some pieces of dripping round it, and bake for half-an-hour, or three-quarters, if the fish be a good-sized one, basting it occasionally. Place it on a hot dish. Mix a teaspoonful of corn-flour with nearly half-a-pint of water or liquor in which fish has been boiled, and a pinch

of salt. Stir this well in the tin you have taken the fish from, and allow it to boil in the oven for a minute or two before pouring it round the fish.

Fish Pudding.—This is a good way of using up cold fish and potatoes. Take about equal quantities of cold potatoes and fish. Remove the bones from the fish, and cut it into very small pieces. Mash the potatoes, and mix them with the fish, together with a small piece of butter, salt, and pepper, and a sprinkling of finely-chopped parsley. When all are well mixed together, lay the pudding on a well-greased tin, make it into a fish shape, and put it into the oven to bake for half-an-hour. When the pudding has become hot, brush it over with egg, or a little milk to brown it nicely.

Fried Fish.—Wash the fish and wipe it very dry. Cut it into good-sized fillets. Egg each one over, roll it in bread crumbs, and fry it in boiling fat for five minutes. Lay the pieces of fish on paper to drain before putting them on a dish. Arrange them nicely on the dish with a few sprigs of parsley.

Instead of egg and crumbs, fish may be fried in fritter-batter, for which I gave you a recipe in an earlier lecture. Small fish such as her-

rings, may be fried whole, simply taking out the inside.

There are many ways of cooking fish besides those I have shown you this morning, but they are more expensive, and not more wholesome. Nothing requires greater care and nicety in cooking than fish. It must be neither underdone nor over-done, but *just* done. In frying fish the great secret is to have enough fat to cover it, and to take care that it is of a proper heat. You may test the fat by throwing in a small piece of bread, which will become browned in a minute or two if the fat be hot enough for frying. If fish be put into fat which is merely melted, it will become sodden with the fat, and thus be rendered very indigestible. Fried fish is not suitable for any one of weak digestion; boiled is much better.

PART II.

WHEN TO EAT AND HOW TO EAT OUR FOOD.

To the question, "When shall we eat?" most of you would answer, "When we are hungry" But this is not a common rule, nor is it in every one's case a good one. Many people

eat before they are hungry, just because they have something to eat; others *must* not wait until they are hungry, because their delicate constitutions require that they should take a little food and often, rather than eat a hearty meal after waiting some time. For all who are in good health, the best rule is to take food at *regular stated times.* In all well-managed homes there is a fixed time for every meal. In the homes of working-men, it is very necessary that this rule of regularity should be strictly adhered to, or work will be seriously interfered with, as well as health. You all know that working-men must work at stated times, and since a man who works must eat, it is essential that he should eat with as much regularity as he works. Where there is regular wear there must be regular repair of the body.

In fixing the regular hours for meals, every one has to be guided by circumstances, but it is always wise that the heaviest meal of the day should be taken after work is done. Those who take a heavy dinner at one o'clock and rush off to work directly it is eaten, make a great mistake. Food does not repair the body immediately after swallowing. It takes a certain

length of time, and it is very essential that during the earlier portion of that time the body should rest, or it will be still further worn out before it can be repaired by the food just taken. It is, therefore, advisable that the heaviest meal of the day should be taken when there is the chance of *at least* half-an-hour's rest before returning to work, or when the day's work is done.

Regularity in eating is of the greatest importance to children. One o'clock is the best time for them to dine. As a rule, children go to bed very early in the evening, and if they were allowed to eat their heaviest meal at six o'clock, when going to bed at seven, it would do them more harm than good. No one should take a heavy meal just before going to bed, or their sleep will most likely be disturbed by unpleasant dreams and night-mares, in which the load of food in the stomach will probably be construed into a load of hay beneath which they are being smothered, or an enemy from whom they are trying to escape down a fathomless flight of stairs.

It is a very bad practice, and one which no judicious mother will follow, to allow children to be constantly eating sweets and cakes between

meals. It takes away the appetite for more substantial food, and at the same time does not allow the stomach the rest it requires in order to prepare for another meal. Invalids, and very delicate children, who really cannot eat a good meal, may be allowed something between meals, but it should be nourishing and digestible.

How to eat, is a question which may never have suggested itself to you, yet it is quite as important as *when* to eat.

(1) *Eat slowly.* Masticate your food well before swallowing it. If allowed to pass into the stomach half masticated, the food will not become properly digested, and therefore cannot do the good it is intended it should do. Those who "bolt" their food, that is, swallow it hastily, derive very little good from it. As a rule, such people look thin and starved, and give one the impression they have not enough to eat, while it is quite probable that they have had much more than enough to serve any one who eats slowly, and thus derives the full benefit of the food.

(2) *Eat temperately.* The old proverb says, "Enough is as good as a feast," but unfortunately for themselves, many seem to think

that a feast is better than enough, and so make a point of feasting rather than eating. While one-half the world has not enough to eat the other half eats nearly twice as much as is necessary. Doctors will tell us of many who have killed themselves by eating to excess, and they might perhaps tell us as a very great secret, that very many of their patients are ill "of eating." Eating to excess as well as drinking, brings on many diseases, and often ends in death. Much has been done to suppress the evils of drinking by the establishment of "Temperance Societies," and I venture to say that many homes might contain an invalid less, and have fewer doctors' bills to pay if the inmates could be induced to join a "Temperance-in-eating Society."

(3) *Eat cheerfully.* Cheerfulness is a condition of the mind. The mind has a most powerful influence upon our bodily health. When we have an uneasy mind, and feel sorrowful or depressed, our appetite fails, and the stomach almost refuses food. Children know very little about having real sorrow, so as to take away their appetites. But perhaps you have sometimes noticed that father has not

enjoyed his dinner, whilst mother has scarcely eaten any at all, and you have fancied they must be sorrowful about something. *They* have many cares and anxieties which you may not know, but may do much to alleviate by a cheerful obedience to their wishes.

Every one should endeavour to be cheerful during meals. No one should take their troubles to the family table, and relate them during meals; but each one should make a point of relating something cheerful. A good laugh will not by any means hinder digestion, while pleasant and cheerful company will make the plainest meal more enjoyable than a sumptuous repast eaten with dull and cheerless friends.

It is our duty to *cultivate* a cheerful disposition if we do not possess one naturally; for, apart from the use it is in connection with our food, it will often be a boon to us as we pass through the world and have to meet its cares and difficulties.

I must not pass over these remarks on cheerfulness during meals, without saying a word on behalf of my special friends, the "little ones." I have no sympathy with the over-proper people who think it wrong for a little child to say a

word at table. Cheerfulness is so *natural* to them, that it seems to me to be even more necessary as an accompaniment to their meals than ours. It is quite possible to teach a child to behave nicely at table, without forbidding it to speak, or never speaking to it. Cheerful company during meals has a wonderful effect upon the appetites of delicate children. Often when dinner is set before them, they seem to have no appetite for it, and, perhaps, ask for something else far less likely to do them good. But if some one near will tell them a tale of a wonderful pussy-cat, who had a dinner given to it, just like theirs, and thought she could not eat it; then, how puss thought she would just taste the gravy, how she licked her lips over it, then tasted the potatoes, and so on, there will be so much sympathy with pussy, that the dinner will be tasted, just as she tasted it; and by the time the tale is finished the dinner will be eaten, and the child much better for it.

While we eat slowly, temperately, and cheerfully, let us not forget to eat *thankfully*. These four points will do much to make our food taste good, and do us good, though it may be of the plainest kind.

LECTURE XII.

PART I.

VEGETABLES.

Potatoes (boiled).—Well wash the potatoes before peeling them, and peel them very thinly, so. Now wash them well again, and put them into a saucepan with sufficient cold water to cover them, and a teaspoonful of salt. Allow them to boil gently until almost tender, then strain off the water from them. Fold a clean little towel, so, place it on the potatoes in the saucepan, put the lid on, and allow them to stand by the side of the fire to finish cooking in the steam that is shut in the saucepan. Give them a shake before turning them into the vegetable dish.

Very great care is necessary in boiling potatoes. It is quite possible to spoil a good potato by bad cooking, and just as possible to make a

bad potato better by cooking it carefully. Be very particular about washing the potatoes first; if you peel them with the dirt on it will adhere to your hands, your hands will dirty the potatoes as you peel them, and you will have some difficulty in getting them perfectly clean afterwards. Remember also to peel them *thinly*. You will remember my telling you in a former lecture that potatoes contain very little nourishment; and since what little there is in them is next to the skin, we throw it away if we peel them thickly. Besides, it is wasteful to peel them thickly, as by doing so we cut away a good portion of the potato. New potatoes must always be put on in boiling water.

Fried Potatoes.—Prepare them as for boiling. Cut them into slices, or chips, as you see here, throw them into very hot dripping, and fry them until brown and tender. Take them out with a slice, lay them on a piece of paper to drain the fat off, then put them on a hot dish and sprinkle a little salt over them.

Baked Potatoes.—Choose them as nearly of a size as possible. Wash them well, scrub them with a small brush, rinse them in clean water, and wipe them. Put them in a moderate oven,

and bake until tender, which you may tell by inserting a skewer in one of them, or taking one in a cloth and squeezing it to see if it bursts easily. This is the most digestible way of cooking a potato, but the skins should not be eaten. If you could look at a piece of potato skin through a microscope, you would find that it is very much like a piece of cork, which, of course, you would never think of eating.

Cabbages and Greens.—Lay them in cold water with a little salt, for an hour. This will bring out all the insects and worms which are generally to be found in green vegetables. Now wash them well, and take off any faded leaves. Put them into boiling water, with plenty of salt, and a small piece of soda, and boil with the lid off until they are quite tender. Strain through a colander, press out all the water you can with a plate, put them into a hot dish, and cut them across several times, so.

When boiling a cauliflower, always keep the flower downwards in the saucepan, so that any scum which rises may not boil down on the white flower and discolour it. *All* vegetables need boiling with salt, but soda must not be put in if they are young and freshly gathered, unless

you are obliged to boil them in very hard water. Vegetables cook much quicker when quite fresh, and the taste is also much superior to the taste of those which have been gathered a day or two. We must never buy stale vegetables—they are neither healthy nor palatable.

Dried Peas and Beans, which are very useful in winter, may be made very nice for eating if properly cooked. They should be soaked all night in soft water, and stewed very gently for several hours next day. Dried green peas are very nice, if soaked all night, then put into a stew-pot in the oven, with plenty of water, salt, a spoonful of sugar, and stewed gently for three or four hours, until quite tender. A pinch of carbonate of soda may be added to the water to improve the colour of the peas. Cooked this way, and eaten with a little butter, pepper, and salt, or gravy, they are delicious and nourishing. You must try some at home. They are very little trouble, and very inexpensive.

When preparing vegetables for cooking, remember that potato parings, faded leaves, stalks, husks, or any other waste part of the vegetables, must not be put into the dust-bin, or they will decompose, or rot, and throw out a poisonous

gas, which would breed a fever. There is no doubt that the poorer parts of our towns often become infested with fever from this cause. All waste vegetable matter should be burnt *at once.* In the outskirts of a town, or in country places, where pigs are kept the potato parings may be boiled and given to them as food. Again, let me repeat to you *never throw any waste vegetable matter in the dust-bin.* I am anxious to impress this upon your minds, because it is so lamentable to think that, through the thoughtlessness or ignorance of a few, a *whole town* may be thrown into a state of misery and desolation by fever and death. I hope none of you who are here this morning, will ever allow your carelessness in this matter to be the means of throwing others into trouble. After all I have said to you about it, you cannot make the excuse that you are ignorant of the seriousness of allowing waste vegetable matter to lie and rot anywhere near a dwelling.

PART II.

DIGESTION.

During the many conversations we have had, you have often heard me use the words *digestion*, indigestible, or digestible. I have sometimes wondered that none of you have asked me the exact meaning of these words.

Digestion is the process by which our food is changed into blood. You all know that when any raw material is being manufactured, it has to go through various stages, and many different machines and instruments have to be used in order to effect the desired change. Take wool for example, and see how many things are brought into use before it can be changed into cloth. So it is with our food. It has to go through various stages of digestion before it can be changed into blood. These various changes are effected by the "organs" of digestion. You can tell me what an "organ" is. Some one says, "It is a musical instrument." An organ *is* an instrument, but not always a musical one. You have forty different organs in your bodies, but if they were all musical ones, I am afraid

you would not be quite so still as you are this morning. Well, then, an organ is an instrument. The eye is the organ of sight, or the instrument by which you see; the ear is the organ of sound, or the instrument by which you hear; and so on with all the different organs of the body.

This morning we will talk for a few minutes about the *first* stage of digestion, and the organs which take part in it.

Digestion first begins in the *mouth*, which we may almost call a little mill; for whatever is put into it in a solid form is sure to be *ground*. The teeth are very important organs of digestion, for, if they are not allowed to do their work thoroughly well, all the other organs cannot do theirs properly. It is highly necessary that our food should we well masticated, or chewed, before it passes into the stomach, or it cannot become properly digested. This is the reason why a baby should have its natural food, and not solids, until it has teeth for masticating them. Many babies have died of convulsions, brought on by their tender stomachs being filled with solid food, which they could not masticate properly for want of teeth.

Besides the teeth, there are other organs of digestion in the mouth. The *tongue* does its part, by rolling the food round and round while the teeth are grinding it. Sometimes, when I have made something very nice for you to taste, I have heard a girl whisper when she has seen it, "Oh, it makes my mouth *water*." Very often, too, when your mouth has felt rather dry, and you have put into it a piece of dry bread or biscuit, you have found, after chewing it for a little while, that it has become quite moist, as if you had taken a drink of water. Have you ever thought where this moisture comes from? It comes from some curious little organs called *glands*. The moisture in the mouth is called *saliva*, and the little organs, or instruments which supply it, are called the "salivary glands." There are many glands in different parts of the body, but they each supply a different moisture. You have glands attached to your eyes, and these supply you with the tears which come when you cry. The "salivary glands," of which we have six, pour forth the moisture which softens our food, keeps our mouths moist, and prevents constant thirst.

Here is a picture of a gland. Although this

picture is almost too small for you to see in the distance, it is very much larger than the real gland would be. These numerous little things which seem clustered together are tiny sacs, so small as to be only a thousandth part of an inch across. They are full of moisture, which they are constantly emptying into this tube, to which they are attached. You see there are several clusters of them, and several tubes. After receiving the moisture from the little sacs, these small tubes empty themselves into this larger one, which again empties itself into the mouth. These tubes are called ducts. Six of them are constantly pouring saliva into the mouth, one in each cheek, one on each side under the tongue, and one under each side of the lower jaw. They are said to pour between three and four pints of moisture into the mouth daily. Some one asks me where the moisture comes from that is in the little sacs. If you could see some of the sacs through a very powerful microscope, you would find them covered all over with tiny blood-vessels, and it is from these that the sacs derive their moisture.

We shall have occasion to mention other glands as we look at the different stages of di-

gestion, and you will now know what they are without any further description.

You see very plainly now, where digestion first begins, and what organs are employed in the first process of digestion, which is called *mastication.*

LECTURE XIII.

PART I.

PASTRY AND BAKED PUDDINGS.

Rice Pudding.—A small teacupful of rice, half an ounce of butter, a quart of milk, two good tablespoonfuls of moist sugar, and a little grated nutmeg.

Wash the rice to free it from any husks or dust. Put it into a quart pie-dish, with the milk and sugar. Stir them well together, until the sugar is dissolved, then add the butter, cut into very small pieces, and the nutmeg. Bake it in a gentle oven for an hour and a half.

Scrap Bread Pudding.—Some scraps of stale bread (about half a pound), half a pint of milk, one egg, two ounces of currants or sultanas, half an ounce of candied peel, two tablespoonfuls of coarse brown sugar, and a little grated nutmeg or spice.

Put the bread into a basin and pour in the milk, which must first be made very hot. If not enough to cover the bread add a little hot water to it. Cover the basin and allow it to stand until the bread is soaked. Then add the sugar, and beat up the soaked bread with a fork, until the lumps have all disappeared. Now add the currants, peel, nutmeg, and egg. Mix all well together, put it into a well-greased dish, and bake in a moderate oven for an hour and a half.

This is an economical pudding, and generally a great favourite with children.

As the three things which follow will need paste, I shall at once make a sufficient quantity for the three. One pound of flour, a saltspoonful of salt, a teaspoonful of baking powder, quarter of a pound of dripping or lard, and enough cold water to mix it into a stiff paste.

Put the flour into a clean dry basin, mix with it the salt and baking powder. Take about half the dripping and rub it lightly into the flour with the tips of your fingers until the lumps are thoroughly broken. Now mix it into a stiff paste with the water. Flour the pasteboard, lay the paste on it, flour the rolling-pin, and roll the

paste out, so. Take half the dripping you have left, and put it over the paste in little pieces, double the paste over so as to form three layers, so, turn the rough edges towards you, roll it out again, put the remainder of the dripping over it, double as before and roll out again to the required thickness.

Apple Pie.—Peel, take out the core, and cut into pieces a pound of apples. Put them into a pie-dish with a tablespoonful of sugar *amongst* them, not on the top, and just sufficient water to cover the bottom of the dish, and keep th m from burning. Slightly wet the edge of the dish all round, and lay on a strip of paste about a quarter of an inch thick. Damp this slightly with your finger and lay on another strip like it. This is to make the edge of the pie look nice and full. Now roll the paste out a little thinner, and cut a piece as nearly the size of the dish as possible. Lay this on the top and press it very lightly down, not *at* the edge, but on the *top* of the edge. Cut it round with a floured knife, holding the dish on your hand, so, and cutting with the point of the knife turned *from* the pie, *not* towards the middle of it, or you will spoil the edge. Trim the edge by making slight slits

all round with the blunt edge of the knife, so. Bake in a good oven for about half an hour.

Jam Tart.—Grease a flat dish or plate, roll out the paste about quarter of an inch thick. Cover the dish or plate with the paste, then lay a broad strip all round the edge so as to touch the jam. This is to make the edge of the tart look better, and if close to the jam will not show. Spread some jam equally over the middle, decorate it with very thin twists of paste, or small cut leaves, and bake in a quick oven for about twenty minutes.

Custard.—Grease a pie-dish, line it all through with thin paste as for a tart. Make a custard with two eggs, well beaten, two teaspoonfuls of sugar, nearly half a pint of milk, and a little grated nutmeg. Pour it into the lined dish, and bake in a gentle oven for about half an hour, or until the custard is nicely set, and the paste done.

You see I have a few bits of paste left, which have been cut off round the edges of the dishes. As paste should never be put away until another day, lest it should be forgotten and allowed to turn sour, I shall use it up by making a few small custards and tarts. There are just a few

spoonfuls of the custard left, and a small quantity of jam out of the jar used for the large tart, which will come in for small ones.

Custards and Tartlets.—Grease some small patty-pans, line them with thin paste, trim the edges, and *almost* fill them with custard or jam. If too full of either, they will boil over in the oven, and spoil. Bake them in a good oven for about a quarter of an hour.

You now see that with the paste and other ingredients, I have made an apple pie, a jam tart, a custard, and six small tarts and custards. If we went to *buy* these ready made, let us see what they would be likely to cost us. No doubt the pie, tart, and custard, would be *at least* eightpence each, and the small ones a penny each. That would be two shillings and sixpence. Now try to calculate what they cost when made at home. I will give you the ingredients, and you tell me the cost. A pound of flour, twopence; a quarter of a pound of dripping, twopence; a pound of apples twopence-halfpenny; a pot of jam, sevenpence; half-a-pint of milk, a penny; two eggs, twopence; sugar, a penny; baking-powder, nutmeg, &c., one halfpenny; making a total of *one* shilling and

sixpence. You will see from this what an advantage it is to know how to make pastry. Of course, this is a plain kind of pastry, but it is very nice and wholesome, and much less likely to disagree with the stomach than pastry bought at the confectioner's. But, as "the proof of the pudding is in the eating," you shall taste it, and I think you will say it is quite as rich as you would care to eat every day.

In making pastry, there are several points to be attended to, apart from the actual making of it. Be careful that everything you use is particularly clean and dry. I need not say how clean your hands and nails should be. Take care, too, that the oven is hot, or your pastry will spoil, however nicely you may have made it. Mix your paste lightly with the tips of your fingers, and not the palms of your hands. Also make it quickly. The less you handle it, and the quicker you make it, the better it will be. When rolling it, turn the rough edges towards you, and roll *from* you, not backwards and forwards heavily. When baking, take care that it does not burn, and when you take it out of the oven, allow it to cool before taking it into the pantry. If you were to put it in a cold place

while the steam is coming from it, the cold would condense the steam suddenly, and make the paste heavy.

PART II.

DIGESTION—(CONTINUED).

Although the teeth play such an important part in the digestion of our food, they are not the largest nor most important organs of digestion, these being placed in the abdomen, or lower part of the body. If you look at this diagram, you will see that the body appears to be divided into two parts. The lower part is the abdomen, and the upper the thorax, or chest. In the upper part are found the *respiratory* organs, which you know are the lungs, and also the heart, through which all the blood flows. You will see from the diagram that the chest and abdomen are separated by an arch-shaped partition. This is called the *diaphragm*, and is a large muscle capable of extension or contraction, like an elastic belt, or just like the muscles of your arm. When you draw in a breath of air your lungs become filled

with it, or *inflated*, and need a little more room, so the diaphragm makes way for them by pressing downwards, and as the lungs empty themselves, it rises again, and so on. But our time will not allow me to say more about this.

Last week we left off our conversation after talking about the first stage of digestion, called *mastication*. When the food is thoroughly masticated, that is, ground by the teeth, moistened and softened by the saliva from the glands, the tongue rolls it up into a little ball, ready to pass into the stomach.

At the back of the mouth are the entrances to two tubes, which are placed close together, one behind the other as I have placed these I hold in my hand. The one in front is called the *wind-pipe*, and is connected with the lungs. If the little ball of food entered this tube you all know what would happen. We should be choked if it were not very speedily removed, because it would prevent our breathing. But the little ball of food enters the tube *behind* the wind-pipe, which is called the *gullet*, and is connected with the stomach. It seems quite natural that you should ask, "How it is that the little ball of food does not drop into the first

tube it reaches?" I will try to show you how it is. At the entrance to the wind-pipe there is a little door of flesh and another one hanging from the roof of the mouth. Directly the little ball touches these doors, one shuts upwards and closes the nasal passage leading to the nose, and the other shuts down over the wind-pipe, thus protecting it while the little ball rolls over it into the gullet behind. These little doors are always open, except when we swallow anything. We could not breathe if they were closed.

The wind-pipe and gullet are not constructed alike. The former consists of a series of rings of gristle joined together, as you see them in the picture here. Here is a wind-pipe from an animal. You see it is quite hollow, and the sides do not meet in the middle. The gullet is a muscular tube; it is not hard like the wind-pipe, and when empty closes together. The little ball of food does not *drop* down the gullet, but goes down very gradually, the muscles of the gullet giving way to it as it passes downwards, and contracting again after it has passed. This is why a man can eat or drink standing on his head—the gullet would act in the same manner, and allow the food to pass gradually down.

Passing down the gullet the food reaches and enters the stomach, which you see is placed immediately under the diaphragm. It is here that the food undergoes the most important changes. We must reserve a description of the stomach for our next lecture. It is a most wonderful organ, and upon it much of our health and happiness depends. Such being the case, it is well that we should know how to manage it, which we cannot do unless we know something of its structure, and *how* our health becomes affected when this important organ gets out of order, or if you like, "out of tune."

LECTURE XIV.

PART I.

BOILED PUDDINGS.

Meat Puddings.—Half a pound of flour, three ounces of beef suet, half-a-teaspoonful of baking powder, three quarters of a pound of buttock steak, quarter of a pound of kidney, pepper and salt.

Put the flour into a basin, mix the baking powder, a saltspoonful of salt, and the suet finely chopped, well into the flour. Mix into a stiff paste with water. Flour the board, roll the paste out slightly, double it once, and roll it out again to about a quarter of an inch in thickness. Lay the top of the pudding basin on it, and cut round it, allowing just a little margin. This is for the top or cover of the pudding. Now grease the basin well, roll out the paste a little thinner than before, and line the basin with it,

so leaving a little over the edge to fasten in with the top. Cut the meat into small slices, and the kidney into smaller pieces. Mix a tablespoonful of flour with a saltspoonful of pepper, and two of salt. Dip each piece of meat into the mixture, and lay them close together in the paste-lined basin, with a few pieces of kidney between each layer of meat. Pour in a teacupful of cold water to make the gravy. Lay the top on, and close it well in all round, or the gravy will boil out. Flour a cloth well, lay it on the top, and tie it tightly under the rim of the basin. Gather the corners of the cloth into the centre of the top, and tie or pin them together. Put the pudding into boiling water, and allow it to boil gently for two hours and a quarter.

Plum Pudding.—Half a pound of flour, half a teaspoonful of baking powder, quarter of a pound of suet, quarter of a pound of currants, quarter of a pound of Sultana raisins, one ounce of candied peel, two ounces of moist sugar, one egg, and a gill of milk.

Chop the suet finely, and mix it with the flour and baking powder. Pick the stalks from the raisins, clean the currants by rubbing them with a little flour and a towel in the colander, so that

the dirt and bits will drop through the holes, and cut the lemon peel into very small pieces. Mix all the dry ingredients well together, then stir in the egg, and lastly, the milk. Beat the pudding well for a minute or two with a wooden spoon, pour it into a well greased basin, or mould, tie a well floured cloth over it, and boil for two hours and a half. To make a cheaper pudding, leave out the egg, and part of the fruit.

Roly-poly Pudding. — Three quarters of a pound of flour, half a teaspoonful of baking powder, quarter of a pound of suet, and some jam or treacle.

Mix the baking powder with the flour, add the finely-chopped suet, and make the whole into a stiff paste with water. Flour the board well, roll out the paste rather thinly, and spread the jam or treacle equally over it, taking care not to put it too near the edges of the paste, or you will not be able to close it in well. Now roll it over and over, so, giving the ends a press at each turn. If the paste be rather dry, you may very slightly wet the edges before rolling. Take care to fasten this last fold well over, or the jam will boil out. Roll up the pudding in a well floured cloth, tie it at each end, put into boiling water, and boil for two hours.

Many things may be substituted for jam in making roly-poly puddings. Treacle, marmalade, currants, figs, or dates cut into small pieces, or fresh fruits, such as apples, gooseberries, currants, &c., but the latter require a good deal of sugar sprinkling over them before rolling the pudding.

Boiled Batter Pudding.—Three quarters of a pound of flour, two eggs, a pint of milk, and a pinch of salt.

Put the flour into a basin with the salt, break the eggs into it, mix well, and add the milk very gradually. Beat the batter well with a wooden spoon, to make it light. Grease a pudding basin well, pour the batter into it, filling it so full that you can only just manage to carry it to the saucepan. Tie a well-floured cloth over it, put it into boiling water, and boil for an hour and a quarter.

It may be eaten with sugar, and is a light and nourishing pudding.

One other useful and economical pudding I must tell you how to make, but our time will not allow me to make one, and that is,

Bread Pudding.—Take some pieces of stale bread, pour on them some boiling water, cover

the basin and allow it to stand for an hour. Squeeze the water from the bread, and add a gill of hot milk. Let this stand a few minutes, then beat it up with a fork until there are no hard lumps left. Add a few currants (cleaned, of course), sultanas, a few strips of candied peel, a grating of nutmeg, sugar according to taste, and if eggs are cheap, just one will make the pudding all the nicer. Grease a basin well, pour the pudding into it, cover with a well-floured cloth, and boil or steam it for an hour and a quarter.

In making puddings, as in pastry, be careful that everything you use is very clean. Be careful to flour your cloth well, and tie it firmly *under* the rim of the basin, and be sure the water is boiling before putting it in. When steaming a pudding it is only necessary to have the water half way up the basin, but it must be kept boiling.

Puddings should not be turned out the moment they are taken out of the saucepan, or they are very liable to break. If allowed to stand a minute the steam will pass off, and the pudding become a little firmer for turning out.

PART II.

DIGESTION—(CONTINUED).

Last week you saw how the food, after mastication, passes down the gullet into the stomach. To-day I shall tell you more about the stomach, and how it acts upon the food.

As the diagram I have is rather small, I will draw a larger one on the black board, so that you may all see the shape of the stomach. Have you ever seen anything of that shape before? A bag-pipe is made of a *pig's* stomach, and is just this shape.

The stomach is a bag or sac, but it is a *double* one—one sac inside the other, the two being loosely joined together and enclosed in a sort of smooth skin. The outer sac is a *muscular* one, and the inner sac a *glandular* one. You all know from our previous conversations what muscles and glands are. The stomach is lined with a very smooth, thin, pink skin. So much, then, for the shape and construction of the stomach. I will now try to show you how it acts on the food.

The food enters the stomach from the gullet

by this opening, which is on the *left* side of the stomach, as it is placed in the body. Directly the food enters the stomach, the muscular sac begins to work. It has three layers of muscles, each one moving in a different direction. One layer, the outer one, is placed *along* the stomach, from end to end, the middle one goes *round* the stomach, while the muscles of the third move in an *oblique* or *slanting* direction. By the movement of these muscles in different directions, the food is worked round and round the stomach, as if it were in a little machine, until it becomes literally *churned*.

But while the muscular sac is doing its work, the glandular one is not neglecting its part ; all the little glands it contains are busy doing what the glands in the mouth were doing when the food was being masticated, that is, pouring out a fluid. If you could see the smooth pink lining of the stomach through a microscope, you would find that it is covered with little spots. These are the entrances to the little glands of the inner sac of the stomach. They are very close together, but when the food is being churned, each of them pours out some juice, and if you could see the process going on, you would say they

were weeping just like the glands of your eyes do when dust or any other small matter gets into them.

The fluid is not like that from the glands in the eye, or the mouth. It is called *gastric juice.* It mixes with the food, and helps to dissolve it, thus changing it into a thick pulpy fluid called *chyme.*

The gastric juice is a very powerful acid fluid, so strong that it will dissolve metals, and yet there is one portion of the food on which it has no effect—it cannot change it, and that is the fat which we eat. But the fat must become changed by some means, or it will not mix with the blood. You remember my telling you that seventy-six per cent. of our blood is water, so that whatever helps this water to become nourishing, warmth-giving blood, must be capable of mixing with it.

Since the fat is merely melted, *not changed* in the stomach, it could not in this condition mix with the pure water in the blood. You see that if I pour a little of this melted fat into this glass of water it will not mix with it, however much I may stir them together. Then the question is, "How does the fat become so changed as to

make it capable of mixing with the water in the blood?" Because another wonderful organ is ready to make this important change. This is the *liver*. You see from the diagram where the liver is placed. It is the largest organ in the body, and, in an adult, weighs about four pounds. The liver is really a large gland, for, like the salivary and gastric glands, it pours forth a juice, but of a different kind still from the others we have noticed, it is called *bile*, and this is the juice which acts on the fat we eat, so as to make it capable of mixing with water. The liver is such an important organ, and so much of our health depends upon its proper action, that I shall say more about it in my next lecture.

You have seen how the food has become changed into chyme, all changed except the fat. It is now ready to pass on to the duodenum, or second stomach. If you look at the diagram you will see that a little tube comes from the liver into the second stomach. It seems to be joined to a little bag or bladder on the liver. This is called the *gall-bladder*, and contains the bile from the liver, which passes down this little tube or duct to mix with the chyme as it passes

from the first stomach into the second, and, to change the fat so that it will mix with water. As our time is gone, I must leave it until next week to show you how this change is effected.

In the meantime, I must ask you to answer the questions for this lecture very thoughtfully and carefully, so that you may not lose the ideas I have endeavoured to convey to you this morning, as they form the most important points in the digestion of our food. I must give you much praise for the manner in which most of you have answered the questions on the last two lectures, for they have shown me that you have taken even more interest than I had anticipated in this portion on digestion.

LECTURE XV.

PART I.

BREAD AND CAKES.

Bread.—Three pounds and a half of flour, a good teaspoonful of salt, and an ounce of German yeast.

Put the flour into a pan, leaving out about half a pound to work the dough up with. Mix the salt well into the flour, then make a hole in the centre. Put the yeast into a basin, and mix it into a paste with tepid water. Add about a pint of lukewarm water to it, and stir it smoothly. Pour it gradually into the hole made in the flour, mixing the flour well into it until a light dough is formed. You may have to add more water; that depends upon the quality of the flour; good flour requires more than poor flour. The dough must be well kneaded by taking it from the sides towards

the middle, over and over, each time pressing it slightly with the fingers, until it looks spongy. You will require a little of the flour we left out while kneading, to keep the dough from sticking. Sprinkle a little flour on the top of the dough, cover it with a clean towel, and place it not too far from the fire to rise, for about two hours. Divide the risen dough into two pieces slightly knead them with a little more flour, place them in greased tins, allow them to rise about quarter of an hour, then bake in a moderate oven for about an hour and a quarter. When done do not lay them flat, but rear them on the edges until cold, when you may put them away. Nothing should be taken out of the oven into the cellar immediately it is done, or the steam will condense rapidly, and make the bread, or pastry, or pudding, what we call "sad," or heavy.

There are other methods of making bread besides the one I have shown you. Many people adopt the plan of "setting the sponge." Most, if not all of you, have seen bread made, as most Yorkshire people make their bread at home, which is very wise of them, because home-made bread is purer, more wholesome, and more

economical than bought bread. If you visited some of the towns in the south of England, you would find that very few people bake their own bread. Take London, for instance. You would find that very few of the girls there had ever seen bread made. The chief reason for this is that coals are very dear there, and poor people can only afford to buy and use a very small quantity at a time, while people in better circumstances are very careful of them. But when a baker heats a large oven, he can bake a large quantity of bread, and thus the actual baking does not cost so much as if done at home, where coal is so dear. Many working people in London never cook a dinner, they can buy almost anything they need at the cook-shops; or if they want a dinner cooking they send it to the bakers, and you would be much amused to meet them going through the streets with a tin containing a joint of meat, some potatoes, and a Yorkshire pudding, which the baker cooks for a trifle.

I have introduced this little conversation merely to amuse you while the bread was being kneaded, but as you would no doubt like to have a cake sometimes, I will show you how to make several kinds, which are very nice, but do not cost much.

Plum Cake.—One pound of flour, quarter of a pound of dripping, quarter of a pound of Sultanas, quarter of a pound of currants, two ounces of candied peel, quarter of a pound of sugar, two eggs, a gill (that is quarter of a pint) of milk, and a teaspoonful of baking powder.

Put the flour into a large basin, mix the dripping into it with the tip of your fingers, until there are no lumps left. Then add the sugar, the peel, and the fruit, which must be first carefully cleaned and picked. Mix these dry ingredients well together, then stir in the eggs. Break each one separately into a cup to see that both are good. Now add the milk gradually, and beat the whole well together with a wooden spoon, stirring in the baking powder last of all. Pour it into a well greased tin, and bake in a moderately hot oven for about an hour. It may take longer, but you can tell when it is done by inserting a skewer into the middle of it. If the skewer comes out quite clear, the cake is done; if at all *pasty* it needs a little more baking. It is possible a little more than the gill of milk may be needed to mix the cake if the flour be very good. It should be quite moist when mixed.

Scones.—One pound of flour, a saltspoonful of salt, quarter of a pound of butter, a good dessertspoonful of baking powder, and sufficient milk to mix the whole into a stiff paste.

Mix the salt into the flour, and rub in the butter. Add the baking powder, and mix into a paste with the milk. Turn it on a well-floured board, roll it out about half-an-inch thick, and cut it in squares or three-cornered pieces. Bake on a floured tin in a moderate oven for twenty or thirty minutes, according to the size you make them. When they are nearly done, brush them over with a little milk to glaze them.

Rock Cakes.—Half a pound of flour, quarter of a pound of dripping, quarter of a pound of currants, quarter of a pound of sugar, an ounce of candied peel, half a teaspoonful of nutmeg, one egg, half a gill of milk, and a teaspoonful of baking powder.

Rub the dripping lightly into the flour, then add all the dry ingredients, taking care that the currants are well cleaned and the peel cut into very small pieces. Next stir in the egg, and lastly, the milk. The mixture must be very dry compared with the plum cake, only just moist enough to hold together. Flour a baking sheet,

and with two forks pick up the mixture and place it on the tin in little *rocky* lumps. Bake in a quick oven for quarter of an hour.

Shrewsbury Cakes.—A quarter of a pound of butter, quarter of a pound of sugar, half a teaspoonful of carraway seeds, one egg, and six ounces of flour.

Put the butter and sugar into a basin and beat them to a cream, with a wooden spoon. (If the weather is cold and the butter hard, take the basin near the fire while beating) When the butter and sugar look quite creamy, stir in the egg and the carraway seeds, and lastly, the flour, a little at a time. Turn the paste thus made on a well-floured board, roll it out very thin, and cut it into little round cakes with a tin cutter. Bake them on a floured tin in a slow oven for twenty minutes.

Now you have seen the cakes made, I wish you to note down several points that need special attention in cake making.

(1) Good beef dripping is much better than inferior butter for cakes.

(2) Eggs used in cakes must be perfectly good, or, like bad butter, they will impart a very unpleasant taste to the cake.

(3) All fruit must be clean and well picked. Stones and fruit stalks are not pleasant things to find in a piece of cake. Currants are best put into a colander, sprinkled with flour, and lightly rubbed with a towel. The flour takes the dirt off them, and the rubbing takes off the stalks, and both drop through the holes of the colander, leaving the currants clean.

(4) Be careful to grease the tins well, or the cake will not turn out easily when done.

(5) Put cakes into the oven directly after mixing them.

(6) When looking into the oven to turn a cake, never close the door quickly, that is, don't *slam* it, or the current of cold air you send into the oven by doing so, will have a similar effect upon the cake in the oven as the cold air of the cellar would if you took it there while steaming.

(7) Never lay a cake flat on a table or plate when you take it out of the oven, or the steam cannot escape all over it. It is best to lay it on a sieve, or if you don't happen to have one, a loosely made basket turned upside down will do. There is nothing like *contriving* conveniences, if you

cannot afford to buy them. Nevertheless, a wire sieve does not cost much, is very useful, and with care will last a long time.

PART II.

DIGESTION—(CONTINUED).

As the food passes from the first into the second stomach, the bile mixes with it and changes the fat so that it will mix with water. The bile is assisted in making this change, by another gland called the *sweetbread*, which is placed at the back of the second stomach. This gland pours out a fluid, something like saliva, which enters the duodenum by the same opening as the bile. This is called *pancreatic* juice. The mixture of the bile and pancreatic juice with it, changes the chyme into a white milky-looking fluid called *chyle*. Now I am sure you are curious to know what it is in the bile that changes the fat. Here is a glass of water with some melted fat in it, as I showed you last week. The fat and water will not mix, but I will put a little piece of something into the

glass, and stir it again. See how it is changing. It is turning into a milky-looking fluid, and now the fat has quite disappeared—it is all mixed with the water. What has caused it to do so? The little piece of something which I put into the glass, and which was nothing more than a piece of common soda, such as you see used at home on washing-day. There is soda in the bile, and this accounts for its action on the fat which we eat. How wonderfully each organ does its part, and how beautifully they are all arranged to follow each other

Unfortunately, they sometimes meet with interference from some cause or other, and then another process goes on, which I have often alluded to, but never explained to you, that is, *Indigestion.* Each organ is appointed to do its own work, and it cannot do any more. You have seen what the teeth and other organs in the mouth have to do, as well as the stomach. Now if we half-masticate our food, the muscles and glands of the stomach cannot do what the teeth and glands of the mouth should have done, and so the food remains a longer time than it should in an undigested condition, much to our discomfort. Very many diseases arise

from indigestion, for if the food cannot become properly digested it cannot make good blood, so the blood becomes poor, and at the same time the stomach becomes irritated by the undigested food; thus both become "out of order," and we cannot continue in health. But in this case the cure, or rather the prevention, rests in a great measure with ourselves. If we are always careful to masticate our food well, and not to take things which the stomach cannot digest easily, we shall do a great deal towards preserving our health.

But besides the abuse the stomach meets with, it is often rendered incapable of doing its work by *discase.* Sometimes the glands become so injured by disease that they cannot work as hard as they used to do. You have no doubt heard of some one having "gastric fever." This is a fever which affects the gastric glands very much. One of the girls asked me last week if I could tell her how it is that she has had a pain in the stomach, *especially after eating*, ever since she had gastric fever three years ago! There is no doubt that what I have just remarked about the gastric glands becoming weakened by disease is true in her case. The glands cannot pour forth

as much juice as they used to, and the food cannot become so easily dissolved, hence the pain it causes. In cases of this kind the food taken should be exceedingly light and nourishing, and milk should form the chief article of diet. A heavy meal should never be taken, but a "little and often;" the oftener the food enters the stomach the oftener the glands pour out their juice Since they are too weak to pour out sufficient for a hearty meal, they must be strengthened by being called upon to do a *little* very often.

The liver is an organ very liable to disease, and when it gets out of order, we become altogether wrong. Many things contribute to the wrong action of the liver. Residence for a lengthened period in a very hot climate will often cause the liver to enlarge. Intemperance will cause it to contract, and those who drink too freely of spirits are sure to have a diseased liver sooner or later, and to pay for their folly by continued ill-health in some form or other If too much fat be eaten the bile cannot change it all—it can only do a certain amount of work —then we suffer from what is commonly called a "bilious attack."

This is a very common complaint, but the long list which I could give of complaints arising from a disordered state of the liver, would almost frighten you.

I have taken up more time than I intended in speaking of *indigestion*, but if what I have said will induce you to be very careful about your diet, and not to abuse any of the organs of digestion, the time will not have been ill-spent, because attention to these matters will do much to keep you in good health. Health is the greatest temporal blessing we have. Money cannot buy it, friends cannot give it us, but we *may* preserve it by our daily conduct, and it is our duty to do so.

LECTURE XVI.

PART I.

INVALID COOKERY.

Beef Tea.—One pound of gravy beef, a saltspoonful of salt, and one quart of water.

Cut the beef into very small pieces, and trim off all the fat. Put it into a basin or jar with the salt and water, and allow it to stew gently in the oven for two hours and a half.

Another Way.—A pound of gravy beef, a good pint of water, and half a saltspoonful of salt.

Chop the meat very finely, taking off all the fat. Put it into a basin with the salt and water, and allow it to stand twenty minutes. This draws out the juices of the meat. Now put it into a saucepan, and boil it gently for about a quarter of an hour.

Extract of Beef.—One pound of gravy beef, and a pinch of salt.

Chop the beef, and take off all the fat. Place it in a brown jar with the salt. Tie over the top of the jar some thick brown paper, doubled. Put it into a saucepan, with water up to the neck of the jar. Cover it closely, and allow it to get hot gradually until it boils. Keep it boiling gently for an hour and a quarter. Take the jar out, and untie the covering, when you will find that there is some beautiful liquor, although no water was put into the jar. This is the pure juices of the meat, and such nourishment as may be given to an invalid needing food, but too weak to eat it. A teaspoonful given every half-hour, or a little oftener, if the stomach will bear it.

Raw Beef Tea.—An ounce of beef to a tablespoonful of cold water.

Chop the beef very finely as before, put it into a cup with the water, and allow it to stand half-an-hour to extract the juices from the meat. This kind of beef tea is given to invalids suffering from the exhaustion resulting from typhoid fever, and other malignant diseases. It is usually administered a teaspoonful every quarter of an hour. The juices nourish the patient, while the coldness and rawness of the fluid have

a healing effect on the bowels, which are in such cases very much ulcerated.

Always pour beef tea through a strainer when done, so that no little pieces of beef may be left in it.

Mutton Broth.—One pound of the scrag-end of the neck of mutton, a small onion, two teaspoonfuls of pearl barley, half a saltspoonful of salt, and a pint and a half of cold water.

Put the meat into a saucepan with the water, salt, barley, and onion, which must be cut into very thin slices. Bring it to the boil very gradually, and allow it to simmer very gently for an hour and a quarter Take the scum off as it rises. When done, take out the meat, pour the broth into a basin, and allow it to stand until cold, when the fat will rise to the top and may be all taken off. The broth can then be warmed again when required for eating.

Toast Water.—A quart of cold water, which has been boiled and become quite cold again, and half a slice of stale bread

Toast the bread very brown (not black), put it into a jug and pour the water on it. Let it stand two hours, and then pour the water from the bread.

Barley Water.—Two tablespoonfuls of pearl barley, a pint of boiling water, an ounce of lump sugar, a few strips of lemon rind, and a teaspoonful of lemon-juice.

Wash the barley in cold water, put it into a jug with the lemon and sugar, and pour the boiling water on it. Stir it well, cover it, and let it stand until quite cold. This is *clear* barley water. It may be made thick by boiling the barley in a quart of water until it has become reduced to nearly half.

Lemonade.—Two small lemons, two ounces of lump sugar, and a quart of boiling water.

Peel the lemons very thinly, taking off the yellow part only—the white would make the lemonade bitter. Take off all the white, cut the lemons into thin slices and take out the pips. Put the rind, the lemon, and the sugar into a jug, pour the boiling water on them and let it stand until cold, stirring it once or twice. Then strain it and it is ready for use.

Bran Tea.—Three good tablespoonfuls of bran, a quart of boiling water, and a little sugar-candy or honey.

Put the bran into a jug, pour the boiling water on it, stir it well, and let it stand until

nearly cold. Then strain it and sweeten with a little honey or sugar-candy. This is an excellent remedy for a dry sore throat.

Gruel.—Two dessertspoonfuls of oatmeal, two tablespoonfuls of milk, half a saltspoonful of salt, nearly a pint of boiling water, and sugar to taste.

Mix the oatmeal, salt, and milk together in a basin. Then pour on it the boiling water, stirring well all the time. Allow it to stand two or three seconds, then pour it back into the saucepan, leaving the grit in the basin to be washed out. Stir the gruel until it boils, and boil it nor ten minutes if made of fine oatmeal, but a good half-hour if made of Scotch oatmeal. Sweeten to taste, and add a grating of ginger, if you like it.

Gruel is so much in request during sickness that every one should know how to make it, and to make it properly too. You see this I have made is quite free from lumps, and looks almost as smooth as a custard, and an invalid is almost sure to enjoy it, with a piece of very thin bread and butter.

Everything cooked for the sick room must be very nicely done, and everything used must be

scrupulously clean: spoons, basins, forks, glasses; and the little cloth on the tray should be very white and clean too. Attention to all these little matters goes a long way towards giving invalids an appetite for whatever may be brought to them.

It is more than likely that most of you will some time or other have to attend to a sick-room. There are very many things to learn before you can be a good sick nurse. I hope, some time or other, to have an opportunity of giving you some lectures on this very important subject.

PART II.

DIGESTION—(Concluded).

To-day I shall conclude my remarks on Digestion by telling you how the food is carried to the veins and becomes the bright red blood which courses through the body.

The *chyle* (which you remember was the condition of the food after the mixture of the bile with it), is gradually pushed along the intestines by the action of the muscles. As it

passes along, the portion of it which is suitable for making good blood, is drawn in or absorbed by some little tubes called *lacteals*. The lacteals carry it to some little glands placed at the back of the bowels, and called "*mesenteric*" glands. When the chyle reaches these glands it undergoes a change; about one-half of it becomes changed into very minute round bodies called *corpuscles*. We cannot see them without the aid of the microscope. But if I had some human blood, and some animal blood, and allowed you to look at them when magnified, you would see the corpuscles, but those in the animal blood would be oval, not round like those in our bodies. It used to be a great puzzle to me, and no doubt it has been to you, to know how anyone could tell the difference between human and animal blood, but it is solely by the difference in the shape of the corpuscles. From the mesenteric glands, the chyle with the corpuscles is carried through little tubes into a kind of bag, which is placed in front of the spine. To this bag a pipe is fastened, which goes up the body by the backbone. The milky fluid, with the corpuscles floating in it, travels up this tube until it reaches

a place in the neck where two veins meet, as you see in the diagram. The fluid enters one of these veins, and has now actually become changed into blood. But it is not bright red blood. It is carried through this vein to the right side of the heart, and from thence through another tube called the pulmonary *artery*, until it reaches the lungs, where, if we are breathing pure air, it becomes *purified* by the *oxygen* that is in the air. It then flows back through the pulmonary vein to the left side of the heart, and from thence it is carried to every part of the body in half a minute. How wonderful that all these organs should be constantly at work in the body!

You have seen how each organ can do a certain amount of work and no more. Try to remember how easily any one of them may be injured by over-taxing it; how the stomach and the liver may become diseased by intemperance both in eating and drinking.

You will best remember what I have told you by talking about it at home, and trying to interest your parents some evening by telling them all you know about digestion and the digestive organs. The very great attention you

have paid to the subject during these five lectures, has shown me how much you have been interested; and now I want to know how far you have remembered what I have tried to teach you, and for your next week's exercise shall ask you to write a short essay on Digestion, showing how the food we eat becomes changed into blood by the action of various organs upon it, not forgetting to notice what is meant by *indigestion.*

LECTURE XVII.

PART I.

CHEAP MEAT DISHES.

Sheep's Head.—A sheep's head, three good-sized onions, four carrots, three turnips, a small bunch of parsley, a tablespoonful of pearl barley, two teaspoonfuls of salt, a small saltspoonful of pepper, and sufficient cold water to cover the head well.

Put the head to soak for an hour in lukewarm water. Then take out the tongue and brains and all the thin soft bones from the inside of the head. Wash the head thoroughly clean in another pan of water, then put it into a saucepan with the water and a tablespoonful of salt. Let the head boil for about five minutes, then remove the scum, and take the head out. This will thoroughly cleanse the head. Now put it into the saucepan again with some fresh water

and the two teaspoonfuls of salt. While it comes slowly to the boil, prepare the vegetables, and add them when it boils, after taking off the scum. Wash the pearl barley, and add it with the vegetables. Allow the whole to simmer very gently for three hours. About half-an-hour before it is done, tie the brains in a little piece of muslin and throw them in to boil for a quarter of an hour. The tongue should be boiled separately. When done, place the head (in halves) on a hot dish. Mash the turnips with a little piece of butter, pepper, and salt, and lay them (in little balls shaped with a spoon) alternately with the carrots, round the dish. Cut the tongue in halves and lay it across the head. Pour over it a sauce made of half an ounce of butter, an ounce of flour, and half a pint of the stock in which the head has been boiled. Add to the sauce, the brains, slightly chopped, and a little finely-chopped parsley. A little more salt if required, as the stock will probably be salt enough. The broth may be eaten as it is, or made into soup of any kind.

Irish Stew.—A pound and a half of scrag or breast of mutton, two pounds of potatoes, two onions, a teaspoonful of salt, a saltspoonful of pepper, and nearly half a pint of water.

Cut the meat into nice-sized pieces, not too large, prepare the potatoes as for boiling, and cut them into slices. The onions must be cut into thin slices also. Now place a layer of potatoes at the bottom of a saucepan, then a few pieces of the meat, and a sprinkling of the onions, pepper, and salt, then another layer of potatoes, another of meat, and so on until all are used. Pour in the water, cover the saucepan closely, and allow it to stew gently for two hours and a half, stirring it two or three times.

Sheep's Heart.—A sheep's heart, a tablespoonful of bread crumbs, half one of finely-chopped suet, a small teaspoonful of chopped parsley, a few leaves of thyme, a little pepper and salt, and an ounce of dripping

Wash the heart, make a stuffing of the crumbs, &c., and fill the heart with it. Place the heart on a small tin with the dripping *round* it, and a piece of well-greased paper *over* it, and bake in a hot oven for half an hour, or rather longer if it be a large one. Baste frequently with the dripping. The greased paper will keep the heart from becoming dried. When done, pour a little stock on the tin, stir it well, and allow it to boil up in the oven before pouring it round the heart.

Breast of Mutton.—A breast of mutton, a quarter of a pound of bread crumbs, a dessert-spoonful of chopped parsley, an onion, a tea-spoonful of salt, and half a saltspoonful of pepper.

Cut the bones from the meat, and take care of them for making soup. Sprinkle the inside of the meat well over with crumbs, parsley, and seasoning. Roll it up and tie it with a piece of tape. Put it into a saucepan with just enough water to cover it, and the onion cut into pieces. Cover it and let it stew very gently for about three hours. Take it out, and after taking off the tape, sprinkle a few bread crumbs all over it, and brown in a quick oven. A little gravy should be poured round it. The liquor in which the mutton has been stewed must be poured into a basin and allowed to stand until cold, when the fat may be taken off; and the bones boiled in the liquor for two hours, will make some excellent stock for soup.

All these are economical dishes, which, with careful cooking, may be made exceedingly tasty and enjoyable. They are each composed of the cheapest parts of meat, and, as you see, can each be turned to very good account, and made

to "go a long way." Take the breast of mutton for example, which is always at least twopence per pound less than a leg or shoulder. You see we have from it a most tasty dish of meat, a large dish of good soup, and a jar of sweet dripping, which will be useful for many purposes.

The sheep's head, with the vegetables, cost a shilling, and, with the good broth it has made, together with a few nicely boiled potatoes, and some bread, would make an excellent dinner for four people.

You see how it is possible to live *economically* and yet *well.* But if we wish to do that we must make a point of knowing what to buy and how to use it, so as to make the most of it. This applies to many things besides food, in fact, to *everything* which comes under the head of "Household Management."

PART II.

EXERCISE ESSENTIAL TO GOOD DIGESTION.

You will remember my telling you in a former lecture that no one should take exercise imme-

diately after a full meal. But exercise is as essential to good digestion as a certain amount of rest is. Indolent, or lazy people, are very often ill, and the reason is very obvious. We find as a rule that indolent people like to eat as well as those who work hard. From what you now know about digestion, you will easily guess how it is that they become ill. You remember how each of the wonderful organs we noticed was prepared to do its work on certain conditions. The chief condition was, that the body should be in some measure worn out before they were called upon to help it. Another condition was, that they should be asked to do only so much work at once, or they could not do any at all. Now when a person is indolent, and neither works nor takes exercise, the body does not waste, but yet the person goes on eating, and, by-and-bye, the whole of the digestive machinery becomes clogged up and refuses to do any more. The result is, that gout, rheumatism, and even more dreadful diseases ensue. The patient then has recourse to a doctor, who, if he be a good sensible man, will prescribe *more work, less eating, and very little medicine.* You see it is good for us that we should *earn*

our food before *eating* it. Our bodies were made for *use* in the form of labour, exercise, or exertion of some kind. They are naturally bright and active, but like all other bright things, will become very *rusty* if not kept in use. It is our duty to labour in some way or other. Idleness is a great sin. But you must not think that the exercise we take must be always in the form of work. We need recreation and amusement, but we must take care that they are of the right kind. Both are conducive to health, but if carried to excess will injure it.

Children do not work, but as a rule they take plenty of exercise. It is seldom we find a child suffering from indigestion. If we do we conclude that the fault may be traced to injudicious diet.

If we need proof that exercise, or labour, which brings all the muscles into play is good for health, let us just stay for a few moments to look at the navvies who work on our roads. How hard they work! and one imagines that when they come to sit down they will be almost too tired to get up again. But see, they are sitting down to dinner on the stones, planks, or

anything handy. It almost makes one feel hungry to see with what a true relish they eat their bread and cheese, or their very thick pieces of bread, with small pieces of meat. What a strong sturdy race of men they are. The secret lies in their labour. All the muscles of their bodies are brought into action, their appetites are thereby increased, and the digestive organs are allowed to do their work so regularly and easily that they not only digest one meal but are perfectly ready for the next.

But you may perhaps say there are many people who have no work to do because they have plenty of money. *Every one* in the world has something to do if they will only take the trouble to *find* it, if it be not brought to them. "*Nothing to do*" is a very tiresome complaint, and those who suffer from it are very miserable, pitiable patients, very much in every one's way, as well as their own. I hope none of you to whom I am now speaking will ever suffer from it. If you *should* ever be so unfortunate, don't forget that the *only* remedy is, "*find something to do.*"

Like food, exercise must be taken regularly and temperately. It should be taken daily,

Those whose labour is in-doors should take out-door exercise every day, not fearing the wind, or a shower of rain, so long as they have an umbrella and a good pair of boots. This plan of daily out-door exercise should be strictly adhered to by all growing girls whose occupation causes them to be closely confined all day, probably sitting at a sewing machine with the body bent and the chest contracted, which is a most unhealthy posture, and if long applied without proper exercise at intervals during each day, will very likely bring on consumption.

But while exercise and recreation are in themselves such good and essential things, they must be used with caution. Too much of either will weaken the body rather than strengthen it.

It is time to bring my remarks to a close, which I do by asking you to remember that *work* is your first duty, and that exercise and recreation are essential as a relief from work and incentives to good digestion. Never take recreation when you ought to be at work, or this habit will tend to bring on the idleness, which is a sin, and will lead you to poverty and disease, not to mention the disgrace of becoming idle.

Work, recreation, and good digestion all com-

bine to give us that great blessing which makes us vigorous and joyous, namely, *good health*, which is far more precious than gold, and should be treasured accordingly.

LECTURE XVIII.

PART I.

MISCELLANEOUS DISHES.

Boiled Rice.—Half a pound of rice, and two quarts of water.

Put the water on to boil. Wash the rice well, and throw it into the boiling water. Stir it well for two or three minutes, and let it boil for twenty minutes, stirring it several times. Now pour it into the colander, and allow the tap to run on it to rinse it. This separates the grains. Now put the rice back into the saucepan *without water*, and allow it to get hot. Serve with treacle. This is a most wholesome dish for children or adults.

Rice is often spoiled in boiling by being tied up in a bag. When cooked this way it becomes one solid mass, and is not at all pleasant to eat. The recipe I give you is an Indian one. The

Hindus cook rice beautifully. They are very particular about it, because it is their chief food. Besides eating it as a vegetable, they introduce it into many of their prepared dishes.

Jelly from Ox-foot.—An ox foot, two lemons, one egg, four cloves, and sugar.

Get from the butcher a fresh ox-foot, scalded and cleaned. Wash it, dry it, and divide it into pieces. Chop the long bone through. Put the whole of it into a saucepan, with enough cold water to cover it. Bring it to the boil, then take out the pieces and plunge them into cold water. This process will blanch the foot. Wash the saucepan out, put the foot back, and cover it with about two quarts of cold water. When it boils, draw it to the side, and let it simmer for six hours. Skim it often to take off the oil. Strain the liquor, and put it aside to cool till next day. When quite cold and set, take the fat off the top with a warm spoon, and in order to insure its being quite free from fat, dip a cloth in hot water, and pass it over the top of the jelly in the basin.

Into a clean saucepan put the yellow rind and juice of the two lemons, the four cloves, five ounces of lump sugar, and the white and shell of

the egg slightly beaten together. On the top of this put the stock. Stir it briskly until it boils, then draw it to the side. Cover it, and allow it to stand for nearly half-an-hour. By this time a thick white-looking crust will have risen to the top. Pour it into a jelly-bag, and run it through several times until quite clear. Rinse a mould with cold water, pour the jelly into it, and let it stand until next day to cool. When ready for turning out, dip a cloth into hot water, and wrap it round the mould for half a minute to loosen the jelly.

This is not an expensive jelly, but an exceedingly nourishing one for an invalid. The ox-foot which has been boiled in it may be served up in onion sauce, just as the one we prepared in the third lecture. Invalids can often take jelly when they can eat nothing else, therefore it may some day be of service to you to know how to make one which is cheap but nutritive.

Fried Bread and Stewed Cheese.—Several slices of bread, a quarter of a pound of cheese, two tablespoonfuls of milk, a little good dripping, pepper, and salt.

Cut the crust from the bread, then cut the crumb into round or triangular pieces. Fry

them brown on both sides in the dripping. When done put them on a hot dish. Cut the cheese into very small pieces, and stew it in a saucepan with the milk until it is quite melted. Put a little of it into the middle of each piece of the fried bread, and sprinkle with pepper and salt.

Caramel for Colouring Gravy.—Grease the bottom of a small saucepan with a little butter. Put into it about two ounces of lump sugar Let it melt and simmer until it assumes a deep brown colour, without burning. Add to it very gradually nearly half a pint of water, and stir it until the sugar is dissolved. Pour through a strainer, and then bottle it. A tablespoonful added to a good dish of gravy will give it a brown colour.

At the special request of several of the elder girls, I shall now give you a recipe for making toffee. It is somewhat beyond the aim of the other recipes, but since a piece of good toffee is very acceptable to any one suffering from a cough, I see no objection to granting the only *very* extra indulgence you have asked.

Toffee.—Half a pound of sugar, a good three ounces of butter, a dessertspoonful of treacle, and ten drops essence of lemon.

Melt the butter in a saucepan, then add the sugar and treacle. Stir them well together, and let the whole boil for half an hour. Then try it by dropping a little into cold water and allowing it to stand a few minutes. If crisp, it is done; if sticky, it needs boiling a little longer. When done, stir in the essence of lemon, and pour it into well-greased flat tins, and allow it to stand until next day in a cool place. Break it in pieces and keep it in a tin canister. If exposed to the air it will become moist.

PART II.

GOOD FOOD NOT THE ONLY THING ESSENTIAL TO GOOD HEALTH.

After all our conversation about food, you must not think that a proper diet is the only thing essential to good health. While it is highly necessary that we should know how to earn our food, how to adapt it, and how to cook it, there are many other household and personal matters which demand our most serious attention, if we are to have good health. We must have

Fresh air.

Pure water.	Cleanly habits.
Good drains.	Proper clothing.
Clean houses.	Temperance.

(1) *Fresh air.*—It is impossible to over-estimate the value of fresh air. It is essential to our being. Plants, animals, birds, all love fresh air, and when excluded from it, they droop and die. Just so with men, women, and children. It is sure, though perhaps slow death to them, to be for any length of time without pure fresh air.

You remember how the pure air taken into the lungs changes the little corpuscles into pure bright blood. But if the air taken into the lungs be impure, the impurity will be carried into the blood, and by it into every part of the body. The result of this is obvious—disease, and, probably death, will follow. Fresh air is a cheap luxury, and if we open our doors aad windows we may have it. But it is not enough that we open them occasionally, and only then allow the rooms of our houses to be filled with it. We must have what is called proper *ventilation.*

When we remain for any length of time in

a room, we breathe the air that is in that room. In breathing we consume or use up the *oxygen* or *life-giving* portion of the air, and what remains after our breathing, comes back from our lungs in the form of a poisonous gas called carbonic acid gas. If no fresh air be admitted into the room, we go on breathing this deadly poison, and, ultimately, die.

This poisonous gas is *lighter* than fresh air, and rises gradually to the *top* of the room. If there be an opening there it will escape; and if there be an opening somewhere near the floor, the *fresh* air will rush in as fast as the foul escapes. By this means we keep the room properly *ventilated*, or, in other words, we keep up a current of fresh air. We never need be afraid of having too much fresh air, so long as we avoid *draughts*. Into the house where fresh air and sunshine do not come, the *doctor* is sure to come.

(2) *Pure Water.*—So much was said about water in a former lecture, that I need say little more now.

Pure water is very essential to health, for, like impure air, impure water will convey

poisonous matters into the blood, and do much to make us unhealthy. Foul water is a very active agent in producing fevers and other deadly diseases. In large towns there is little difficulty in procuring good water, but those who live some distance from towns sometimes have great difficulty in getting good water, often having to carry it some distance from a neighbouring well or spring. Pure water has no smell, no taste, and is bright and clear.

(3) *Good Drains.*—If the drainage of a house be defective, the house cannot be healthy. Unless we build our own houses, and see to it that the drains are all rightly constructed so as to carry off all impurities and damp, we are, in a great measure, at the mercy of our landlords. It is very sad to find that there are, occasionally, very unprincipled landlords who will put up houses (especially for the poor) with such defective drainage as is sure to bring the inhabitants sickness and death. Now, if the drains cannot properly carry off impurities, what is the consequence? The pure fresh air becomes contaminated or rendered foul by them. We can easily tell

this by the offensive smell which arises from bad drains. There is no doubt that the sad havoc an epidemic always makes with the poorer neighbourhoods of our towns is due, in a very great measure, to the imperfect drainage in those parts.

(4) *Clean Houses.*—Who does not love to see a clean house? Yet it is quite possible for a house to *look* clean and yet not *be* so. A clean house does not consist in a house where all floors, windows, steps, and all surfaces of the furniture are clean. Corners, cupboards, pantries, cellars, ceilings, walls, mattresses, bedsteads, drawers, and many other things in a house, have a habit of taking to themselves dust and cobwebs, and, in addition to this, are frequently called upon to take care of old rubbish, which is neither use nor ornament. *These* things spoil the air, and injure our health, therefore, they should not be allowed to accumulate, or the house *cannot* be clean.

(5) *Cleanly Habits.*—We must take care to keep *ourselves* clean as well as our houses. You all know what it is to *perspire.* Perspiration appears to you to be simply a watery

fluid, but it is much more than this. Besides cooling the body and keeping the skin moist, the perspiration brings out matters which the body does not need. As these matters are thrown out the skin must be freed from them by frequent washing or bathing, or they will dry on the skin, close up the pores, and prevent the perspiration from bringing out further impurities, which will return to the blood and produce disease. All articles of clothing worn next the skin should be changed very frequently, especially in hot weather, and after much exertion. No one who has any respect for themselves will be dirty either in person or dress.

(6) *Proper Clothing.*—This is another essential to good health. We should make our clothing a study in a *sensible manner*, not with a view to feed our vanity, nor to lead us to extravagance, but as to how we should clothe ourselves in order to preserve our health and our character. We must suit our clothing to the season of the year and the weather, so as to avoid catching cold. As I hope to say much more to you about clothing at some future time, I shall not say more now.

(7) *Temperance.*—Of temperance in eating and drinking, I had occasion to speak in a former lecture. To be healthy and happy we must be temperate in *all* things. We must have a *sufficiency* of work, food, rest, exercise, recreation, &c., without going to *excess* in any one of them.

Had our time permitted, I should have said much more to you about the conditions of health spoken of this morning. But I hope some time to give you a course of lectures on these subjects. I have ventured to introduce them into this course of Lectures on Food, for the benefit of the older girls who may be leaving school soon, and will not have the chance of hearing any further remarks from me on these points.

LECTURE XIX.

PART I.

FARINACEOUS FOODS.

Macaroni with Cheese.—A quarter of a pound of macaroni, two ounces of good cheese, a quart of water, an ounce of butter, nearly a pint of milk, a pinch of pepper, and a teaspoonful of salt.

Break the macaroni in pieces, about a finger's length, and put it on to boil with the salt and water. Allow it to boil until it is swollen and almost tender. Then drain the water from it, and pour in the milk. Let it simmer very gently until the milk is almost absorbed, then stir in the butter and the cheese, which must first be chopped into very small pieces. Stir it well until the cheese is all melted, but do not allow it to boil. Add a little more salt if required, and a sprinkling of pepper. Pour it

on a hot dish, and serve it with plain bread or toast.

Macaroni Pudding may be made by preparing the macaroni as for cheese, allowing it to cool, then stirring into it two eggs, and sugar to taste, and baking in the oven for a quarter of an hour. A little nutmeg may be used to flavour it.

Vermicelli Pudding.—Two ounces of vermicelli, a pint of milk, a dessertspoonful of sugar, one egg, half-an-ounce of butter, and a grating of nutmeg.

Put the vermicelli in a saucepan with the milk, and allow it to simmer until it thickens, and the vermicelli looks clear. Next stir in the butter and sugar. When nearly cold, stir in the egg. Pour the whole into a buttered pie-dish, grate a little nutmeg on the top, and bake for a quarter of an hour.

Semolina Pudding.—Two ounces of semolina, a pint of milk, two ounces of sugar, two eggs, half-an-ounce of butter, and a little nutmeg.

Boil the semolina gently in the milk until it thickens, then add the butter, sugar, and nutmeg. When cool, stir in the eggs, pour it into a buttered pie-dish, and bake for half-an-hour.

Blanc-mange.—A quarter of a pound of corn

flour, a quart of milk, a dessertspoonful of sugar, and a few drops of essence of lemon.

Mix the corn flour in a basin with half-a-pint of the milk. Put the remainder of the milk on to boil, and stir into it the sugar. When it boils, pour it on the corn flour in the basin, stirring it well all the time to prevent its becoming lumpy. Pour the whole back into the saucepan, stir it well, and allow it to boil two minutes. Then stir in six drops of essence of lemon, and pour it into a basin or mould, which has been rinsed in cold water. Allow it to stand until cold.

Corn Flour Pudding may be made by boiling two tablespoonfuls of corn flour in a pint and a half of milk, with one tablespoonful of sugar, and when nearly cold, stirring in one egg, and baking in a pie-dish for twenty minutes.

The recipés this morning are all preparations of *Farinaceous Foods*, or in other words, foods derived from corn plants.

Macaroni is made of the best wheaten flour, and is very largely used as food by the Italians, in fact it is the chief food of the peasantry in many parts. It is made by mixing the flour into a paste with water. It assumes the form in which you have seen it this morning by being

passed through cylinders pierced with holes, the size of this piece of macaroni. A very heavy screw attached to the cylinder forces it through the holes. Underneath the cylinder a fire is placed, which partly bakes the macaroni as it passes through the holes. It is then drawn away and hung on rods to dry. A friend of mine, recently returned from a tour in Italy, tells me he has seen miles of macaroni drying.

Vermicelli is prepared in a similar manner to macaroni, but, as you see, the holes through which it is pressed are much smaller.

Semolina is the most nourishing of these farinaceous foods, as it consists of the *gluten* of wheat without the starch. Very few of you seem to have seen this preparation before. Try to introduce it at home, as it is not expensive, but exceedingly nourishing. It forms a most useful and excellent thickening for soups.

Corn flour is prepared from Indian corn, and is a useful article of food. It is composed almost entirely of starch, and for this reason it should never form a chief article of daily diet, *especially for babies.* It is very fattening, but not flesh-forming or bone strengthening. When we take farinaceous foods, we generally mix them

with milk, which, of course supplies the nutriment which starchy foods lack.

PART II.

HOW TO CLEAN COOKING UTENSILS.

Cleanliness is so essential to good cooking, that I should consider these lectures very incomplete if I closed them without showing you how to clean everything we have used in preparing all the good things you have tasted.

The Stove.—Clear it of all ashes, and soot, not forgetting the dampers, where much that prevents the stove from doing its work, may be found. The oven, too, must not be overlooked, but must be swept out, or any bits left in it will burn and cause any food baked to taste disagreeable.

Having thoroughly cleared all dust from the stove, brush over a small portion of it (beginning at the top) with blacklead, mixed to the consistency of cream. Brush this off with a first brush, and with a second one brush it briskly until it *shines*. We like to see a *shining* stove. The fire in winter looks twice as warm if the

stove be bright. Take another portion of the stove and clean it in the same manner, and so on until it is all done, taking care to make the bars look nice. It would not do to put the blacklead all over the stove at once. It would dry on before it could be brushed, and there would be some difficulty in polishing.

The Hearth-stone.—The stove would not look clean if the hearth were left dirty. It should be swept, then well washed, to free it from all dirt. If it be greasy, a little soda in the water will take off the grease. Next rub it over with hearth-stone; and with a flannel wrung dry, wipe it over in straight lines until it looks smooth.

Saucepans.—Nothing used in cooking requires greater attention than the saucepans. A dirty or half-cleaned saucepan is quite inexcusable, and always seems to say, "Whoever *pretended* to clean me is a dirty slovenly cook." To be thoroughly cleaned, a saucepan must first be washed in hot soda-water, with a little soap to take off the grease. A little soap should then be rubbed over the inside of the saucepan, and a little fine sand rubbed over it with the hand or a piece of flannel. This will take off

anything which may adhere to the saucepan, and make it bright and clean. The saucepan must now be thoroughly washed again in clean hot water, to take off the soap and sand.

The *outside* of the saucepan must be washed too, and the rim, handle, and lid, must not be forgotten. The latter should be kept bright. After washing the saucepan thoroughly, wipe it with a dry dish-cloth, put it on the hob to dry for a minute or two, before putting it away. Never put the lid close on the saucepan when you put it away, but place it so that the air can get into it.

If a saucepan be left dirty it will give an unpleasant taste to the next thing cooked in it, not to mention the more serious fact that dirty saucepans become *poisonous*, a chemical matter called *verdigris* collecting upon them, and, of course, mixing with the food if the saucepan be used in such a state.

Pans.—Dripping-pans must be washed in hot soda-water, rinsed, and wiped very dry. They should also be kept in a dry place. Frying-pans may be washed as the saucepans are, but must not be rubbed with sand. A hard crust of bread is better to use for the purpose of rubbing it.

Tins.—All tin things should be kept bright, or the kitchen will not look clean. For this purpose rub them first with a damp flannel, rubbed over with soap and dipped in whiting. Polish them with a dry soft rag, and a little finely-powdered dry whiting.

Spoons must be first washed to free them from grease, and may then be cleaned as the tins are.

Knives and Forks should always be cleaned at once after using, and never be put away dirty. They must first be washed in hot water, *taking care not to put the handles in*, then wiped dry, and the knives rubbed on a knife-board with Bath-brick. The forks must be cleaned with a rag dipped in Bath-brick, and care must be taken to clean between the prongs. Plated forks are best washed with soap and water, wiped dry, and polished with a soft leather. Both knives and forks must be well wiped with a clean duster after cleaning them, and the handles may occasionally be cleaned with a damp cloth.

Sieves.– Put the sieves one by one into a pan of hot water. Wash off the grease ; then with some clean water, soap, and a brush, scrub them

all over inside and out until quite clean. Rinse them thoroughly, shake them, and rear them up to dry. The wire must be rubbed dry with a cloth, or it is liable to rust if left damp.

Paste-board and Rolling-pin.—Wash them in hot water in which there is just a little soda, and scrub with a brush until clean. Rinse well in the hot water, and rub with a dry cloth. See that both are quite dry before putting them away.

The Table.—Kitchen tables should be kept clean and white, as they are in such constant request in cooking. Wipe the table down with a cloth to take off any crumbs or bits. Then with some good hot water with a small piece of soda in it, wash as much of it as you can conveniently reach, then rub a little soap over it, sprinkle a little sand, and scrub with a brush until it is quite clean. Scrub backwards and forwards the way the grain of the wood goes. Now wash the soap and sand off, rinse the flannel, wring it dry, and wipe the table dry, rinse the flannel and wipe it again so as to take off all the moisture possible, and leave no smears. Then proceed in the same manner with another piece, and so on until the top is finished, after which take the parts underneath,

and the legs. When the table is dry wipe it over with a clean cloth to take off any bits of sand that may remain.

To Wash Dishes.—Have ready a pan of hot water with a little soda in it, and another pan filled with cold water. After taking all bones and pieces off the plates, wash them in the hot water with a clean dish-cloth, back and front, then rinse them in the cold water and lay them on a board to drain. Wipe each with a clean cloth and put them in their places. Meat dishes, basins, and all things of a similar kind may be washed in this way. China must never be put into very hot water, or it will probably crack. Many people allow the dishes to drain and do not wipe them at all, but it seems to me that it is more cleanly to wipe them after draining.

Glasses should be washed in *cold* water with a little soda in it, and wiped very dry with a clean soft towel.

Dishes and glasses should shine. It looks dirty to find them smeared, as if they had been half washed, not rinsed, and wiped with a dirty towel in the bargain.

To know that our food has been prepared in

the most cleanly manner, to see clean knives, forks, spoons, glasses, dishes, and a clean cloth on the table, makes a wonderful difference in the enjoyment of our meals.

LECTURE XX.

PART I.

DINNER PREPARED BY THE GIRLS.

(1) Potato Soup. (2) Roast Mutton and Yorkshire Pudding. (3) Potatoes, Cabbage, and Haricot Beans. (4) Plum Pudding.

This last lecture differs from the preceding ones, inasmuch as the first part was left to the girls themselves, as a test of what had been learnt.

In each class eight girls were selected from amongst those who had been present at all, or nearly all the lectures; the privilege of preparing a dinner being regarded as a reward for regular attendance. Two girls prepared soup, two meat and Yorkshire puddings, two the vegetables, and two the plum puddings. The remaining girls were divided off in groups, with recipes in hand, to watch their operations, and correct any mis-

takes, should they be made. To the credit of the girls, it must be asserted that in every instance the dinner was served up cooked to a nicety. That it was most heartily enjoyed by them all will not for a moment be questioned, and, that the girls who prepared the dinner felt just a *little* bit *officious*, and proud of their doings, as they bustled about in their little cooking-aprons, *made for the occasion*, is quite excusable.

PART II.

HOME.

Happy Home.—This morning we will have a short conversation about *home*, the place where our food is prepared for us. Home is, or ought to be, everyone's own little world—nearer and dearer than any other spot upon earth. Nothing upon earth is so beautiful as a happy home, and those of us who have them should prize them most dearly. Let us take an imaginary peep into a happy home. First, there is

(1) *The Food-provider, Father.*—How hard

he works, so that his family may have food and clothing! But how he seems to forget his hard day's toil when he finds his home bright, clean, and cheerful, and a well-prepared meal awaiting him! It must be a sad disappointment to a hard-working man to find things quite the opposite to this when he comes home. If we could look into all the mismanaged homes in this town, we should not be quite so much astonished at the manner in which public houses flourish. If a man is not *made* comfortable at home, he will *seek* to be comfortable elsewhere, and his hard earnings will go to enrich the publican and the brewer. It seems to me that it rests in a great measure with the *women* of England, to lessen the number of public houses in the land, and thereby to decrease the distress and poverty which make others rich.

(2) *The Food-manager and Preparer—Mother.*—How much home depends upon her for its comfort. How much care she has; for she has to think of, and care for, all the family. All look to mother for their comforts, and no one is so much missed if she be away, or laid aside by sickness. "Where's mother?"

is the first question, if she is not in her usual place when father comes in from work, or the children from school. It is impossible to tell the worth of a good mother. Children love their mothers very dearly, but it is only as they grow older that they find out how difficult it would be to do without them at home.

(3) *The little Food-eaters — Children.* — Laughing, romping, and joyous, knowing no toil or care, as father and mother do. All their wants are provided for without a thought on their part. How pleasant it is to see brothers and sisters happy together. They gain much love by being kind and attentive to each other. Quarrelsome children make a home miserable.

Since children have to depend so entirely upon their parents for all they have, how right it is that they should return their care for them by showing them all the love and attention they can. Children may do very much to make home happy by attention and obedience to their parents. It lightens a mother's care when her children are good and kind to her, and a father's toil seems lighter when those he works for try their best to make him happy.

Try, then, to do your best to make home and everybody in it happy. You will then look back upon your childhood with very great pleasure, so much so that you will often wish you might live it over again.

CONCLUDING ADDRESS.

AFTER spending such pleasant hours with you in teaching you all about food, I should not like to say "good-bye" without saying a few words to you about yourselves *especially*.

Some of you will shortly be leaving school and making up your minds what you are going to do to earn a living. Some will choose one thing, some another. But remember, whatever your choice may be, your success will depend upon *yourselves*. While you have been at school you have been under the good influence and kind guidance of your teachers, and your parents have willingly entrusted you to their charge for a good part of each day, knowing that you would be taught to do right. When you leave and go to various situations, you will very likely find things much different from what they are at school. You may not all be for-

tunate enough to meet with a master or mistress who will be so anxious about you as your teachers have been. You will then have to keep a strict watch over *yourselves* so that you may not go wrong.

Be very careful in your choice of companions.—Do not associate with those who are at all likely to lead you into a careless disregard for your character. Many a young person has been ruined by evil companions. Shun them, as you would an enemy.

Be careful how you spend your evenings.—Do not get into the habit of spending them in the streets, nor allow yourselves to be allured into spending them in the low music halls which abound in the town. You will never find any one there who wishes to be respectable or respected. Again, do not spend your spare time in reading the many questionable penny papers which are, very deservedly, called "penny trash." Good books are plentiful, and cheap, therefore, there is no excuse for reading any others.

Be Honest, then you can look the world in the face. Be honest in all your actions. Never take a pin that does not belong to you. Be

honest in principle—that is, because you *like* to be, not that you are *obliged* to be, because some one is watching you. Be honest in character—never pretend to *be* what you *are not.*

Be Truthful, then you will be trusted. Never *deceive* those who trust you, or you will at once lose their confidence, and your own peace of mind. There are many ways of telling an untruth, besides *speaking* it. A lie never benefits those who utter it, but it returns to them in some form or other, and they rarely like to meet it again.

Be Industrious.—Never eat the bread of idleness. It is better to *wear* out, than to *rust* out. Industry leads to health and happiness, and wins for us the respect of our fellow-creatures, and gives us much satisfaction within ourselves.

Be Economical.—As soon as you begin to *earn* something, begin to *save* something, if it be but a penny or twopence a week. Do not waste your money—you will want it some day. Above all, do not waste it in *dress.* Many young girls spend most of their wages in flimsy finery and false hair, and at the same time go short of underclothing, or food, and so injure their health.

Be economical in the house in which you live, whether it be at home or elsewhere. If you are entrusted with your master's goods, be even more careful of them than you would of your own. This is faithful service, and will not go unrewarded.

Be kind to your Parents.—When able to get your own living, do not think that you no longer need their counsel and advice. You will need it quite as much as ever you did. Remember what they have done for you, and do all you can to repay them by adding comfort and kindness to their old age.

In conclusion, let me assure you what a great pleasure it has been to me to give you these lectures. I have enjoyed them as much as you; and the thought that they may influence for good your future life, and help to make you better women than you might have been, makes me forget the toil and trouble of preparing and delivering them. My greatest hope is, that you will make good use of them, and make up your minds to become model housekeepers.

Your attention throughout the lectures has aided me very much in giving them, and of the manner in which many of you have answered

the questions every week, I must speak in highest praise. I have been much gratified to find that most of your parents have taken a real interest in this new feature of your school work, and must ask you to thank them for the many little notes expressing their appreciation of what you have been taught.

I shall often think of you, and as years go by shall wonder *where* you are, and *what* you are doing. Whatever you are, and wherever you may be, try to become good and noble women, then God will bless you and make you a blessing to others.

APPENDIX.

MANY inquiries having been made respecting the arrangement of the rooms in which the foregoing lectures were given, and the cost of utensils used, a few hints upon these points will not be out of place here.

Each room was fitted up with a gallery at one end, capable of holding the number of girls expected at each centre. A short distance from the gallery was placed a long table with strong white top. Where the tables are likely to remain as fixtures, it is advisable to enclose them all round, and utilize the space underneath as cupboards for stores and utensils, as was done in this case. Each table was divided in the centre, leaving sufficient space between to admit of a gas cooking stove.

The stove used was the "Reflector," manufactured by Edwards (late Fisher), 140, Fleet Street, and 211, Strand, London, the price being five guineas. This is an admirable stove for the purpose, as it will roast, bake, boil, and stew at the same time.

The following lists will show the cost of utensils, &c.

LIST OF UTENSILS.

Ironmongery.

	£	s.	d.
Four Iron Saucepans, 1 to 4 quarts	0	7	6
Three Tin „ 1 to 3 pints	0	2	6
One Small Frying Pan	0	1	0
*One Hanging Gridiron	0	1	0
Iron Footman	0	1	4
*A Small Dutch Oven	0	1	6
Six Knives and Forks	0	4	6
Set of French Cook's Knives	0	9	0
Four Iron Spoons 10d., Soup Ladle 1s. 3d.	0	2	1
A Fish Slice 5d., a Gravy Strainer 10d.	0	1	3
Two Cake Tins, oval or round	0	1	4
One Dredger 6d., Pepper Box 2d.	0	0	8
Skewers, Steel, and Grater	0	2	0
Six Teaspoons 1s. 6d., Three Dessert Spoons 2s. 10d.	0	4	4
Three Baking Sheets 2s., Six Patty Pans 4d.	0	2	4
Water-can and Pail	0	3	8
Fish Kettle 5s., Chopper 2s. 3d.	0	7	3
Three Tin Moulds, various sizes	0	5	0
Colander 1s., Scissors 10d.	0	1	10
Box of Paste Cutters (round)	0	2	9
Coffee Pot 2s. 4d., Tea Pot 2s. 6d.	0	4	10
Tea Kettle 4s. 6d., Scales 15s.	0	19	6
Small Flour Bin	0	3	6
	4	10	8

* May be dispensed with when the "Reflector" Stove is used.

Wooden Utensils.	£	s.	d.
Paste Board and Rolling Pin	0	2	3
Six Wooden Spoons	0	1	1
Sieve 1s. 9d., Soap Box 4d.	0	2	1
Three Stove Brushes	0	2	2
Two Scrubbing Brushes (one small)	0	2	0
Paste Brush 6d., two Bone Saltspoons 2d.	0	0	8
Housemaid's Box 3s., Knife Board 1s. 6d.	0	4	6
	0	14	9
Stone Ware.			
Two Stone Jars (for steaming)	0	0	10
Nine Jars with Covers (for stores)	0	4	2
Three Pans, various sizes	0	3	1
	0	8	1
Earthenware.			
Twelve Plates (two sizes)	0	4	1
Six Soup Plates	0	2	0
Six Dishes (various sizes)	0	10	0
Three Common Basins	0	0	6
Two Pudding Basins	0	0	8
Three Cups and Saucers	0	0	9
Four Jugs (various sizes)	0	2	10
Six Pie Dishes (three oval, three deep)	0	2	3
Three Tumblers	0	0	9
One Paste Basin	0	1	6
One Milk Basin	0	1	2
A Gravy Boat	0	0	9
Sauce Tureen	0	1	6
Two Vegetable Dishes	0	3	6
	1	12	3

CLOTHS.

	£	s.	d.
Two Roller Towels	0	2	6
Twelve Kitchen Cloths	0	6	0
Six Tea Cloths	0	3	0
Six Glass Cloths	0	2	6
Four Pudding Cloths	0	1	0
Four Dish Cloths	0	0	8
Four Dusters	0	1	0
Two House Flannels	0	1	0
	0	17	8

TOTAL.

Ironmongery	4	10	8
Wooden Utensils	0	14	9
Stone Ware	0	8	1
Earthenware	1	12	3
Cloths	0	17	8
	£8	3	5

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